DOCUMENT RESUME

ED 062 263 SO 003 038

AUTHOR	Tenenberg, Morton S.; Dethlefsen, Edwin S.
TITLE	Anthropology Curriculum Study Project. Teacher Service Materials. Students and Teachers: Strategies for Discussion. What is Anthropology: Four Samples.
INSTITUTION	American Anthropological Association, Washington, D.C.
SPONS AGENCY	National Science Foundation, Washington, D.C.
PUB DATE	72
NOTE	109p.
AVAILABLE FROM	American Anthropological Association, 1703 New Hampshire Avenue, N.W., Washington, D.C. 20009 ($4.00)
EDRS PRICE	MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	*Anthropology; *Cognitive Objectives; *Concept Teaching; Course Descriptions; *Cross Cultural Studies; *Inquiry Training; Projects; Secondary Grades; Social Studies Units; Teaching Guides
IDENTIFIERS	ACSP; *Anthropology Curriculum Study Project; Patterns in Human History

ABSTRACT

This booklet, intended for high school anthropology teachers, supplements lesson plans and teacher background materials for the sixteen week Patterns in Human History course, the goal of which is an effective sequential teaching plan that blends anthropology and history. The function of the booklet is: 1) to help teachers make a general judgement about students' learning abilities and modify class activities to fit special needs of students; and, 2) to provide an overview on and selected sample lessons from Patterns. Emphasis is upon learning objectives that will increase the number, scope, and clarity of concepts students know. Contents are divided into two parts. Part 1) includes nine chapters with sample discussions from the Patterns course, each centering on a particular set of concepts and cognitive skills. Commentary is provided proposing various strategies with emphasis on inquiry training. The nine chapter titles are: Recognizing Differences in Students' Abilities to Classify; Classifying; By Direct Observation and by Inference; Approaching the Unfamiliar from Familiar Ground; Expecting the Unexpected; Using Clusters of Criteria; Speculation; Asking Questions and Grouping Ideas; Testing Speculations; and Levels of Inference. Part 2) includes facsimile pages from Patterns, an introduction and overview of the course, table of contents, sample lessons on the four topics: "Studying Societies", "Origins of Humanness", "The Emergence of Complex Societies", and "Modernization and Traditional Societies". (Author/SJM)

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1 STUDENTS AND TEACHERS: STRATEGIES FOR DISCUSSION

2 WHAT IS ANTHROPOLOGY? FOUR SAMPLES

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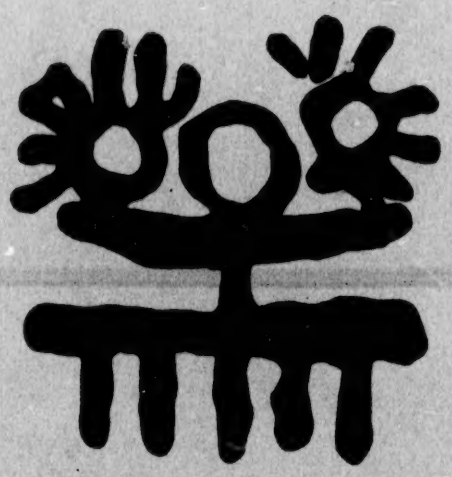

ANTHROPOLOGY CURRICULUM STUDY PROJECT
TEACHER SERVICE MATERIALS

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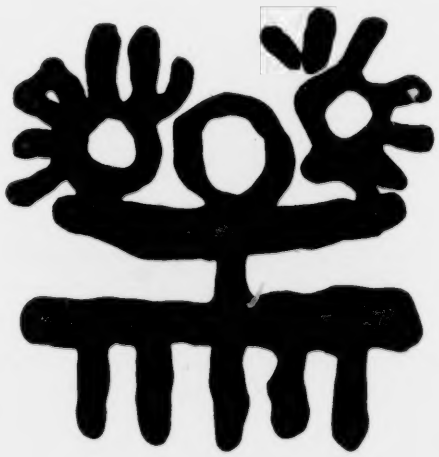
1 STUDENTS AND TEACHERS: STRATEGIES FOR DISCUSSION

MORTON S. TENENBERG

2 WHAT IS ANTHROPOLOGY? FOUR SAMPLES

EDWIN S. DETHLEFSEN



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The Anthropology Curriculum Study Project
was supported by the National Science Foundation under Grant No. G-22323
and sponsored by the American Anthropological Association

Published by the

AMERICAN ANTHROPOLOGICAL ASSOCIATION
1703 New Hampshire Avenue, N.W.
Washington, D.C. 20009

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PREFACE

The Teacher Service Materials of the Anthropology Curriculum Study Project are intended to support and to complement the Teaching Plan of PATTERNS IN HUMAN HISTORY—the ACSP social studies course.* The explicit ACSP aims for teachers using PATTERNS, stated in the Introduction to the Teaching Plan, are excerpted here for readers not already familiar with them.

This is a teaching plan. It is not a set of casual suggestions but a plan *for a specific sequence of topics, materials, and activities. The plan is so specific that it may seem to suggest that the teacher is viewed as a mechanical agent. This is not the case. The full intellectual involvement of the teacher is required, as a look at the Teacher Background section of any lesson will confirm. The nature of the teaching plan is related to—and contributes to—the distinctive character of* Patterns in Human History *and to the distinctive role of the teacher.*

The goal of the plan is the effective teaching of a course that blends anthropology and history. However unfamiliar a teacher may be with anthropology, this plan makes effective teaching possible from the very beginning. But it does something else. The teaching plan is itself a course in anthropology. Teachers who study its ideas seriously and work through them in classroom situations will become professionally competent in anthropology.

Paradoxically, this will free the teacher in subsequent years from the teaching plan. The short-range goal of the teaching plan is to make possible the effective teaching of Patterns. *The long-range goal is to increase the professional autonomy of the teacher and make possible increasingly effective teaching of the anthropological ideas that, in the teacher's judgment, contribute to the social studies.*

. . . The course, Patterns in Human History, *is in a real sense to be found only in the teaching plan. The student materials, for good reasons, have no inherent organization. The Readings do not have introductions that tell the student what the Readings mean. The significance of the full mix of materials—Readings and other media—emerges from intellectual operations that are under the control of the teacher. This strategy avoids undermining the inquiry process and thus offers the best opportunity for original analysis of the data and for open-ended insight.*

Finally, the teaching plan will provide, as it is used, the best answers to the questions: What kind of course is Patterns*? Is it an anthropology course? A history course? How does it contribute to the social studies curriculum?*

There are short—and simplistic—answers to these questions. Yes, it is an anthropology course but of a special kind, not modeled after any existing course. Yes, it is a history course, but much of the data comes from groups without political identity, and the focus is not on this group or that but on the long-range development of human societies and human nature. Yes, the course will contribute to the social studies curriculum through acquisition of social science tools and attitudes applicable throughout the social studies, through encouragement of a non-ethnocentric intellectual posture, through affective identification with man in all his cultural guises.

But such answers are not very helpful. The real answers will be empirically derived through classroom experience. The teaching plan is meant to structure that experience, to make it productive and satisfying.

*PATTERNS is described further on pp. 46-71.

Each publication in the Teacher Service series can explore only a few of the many dimensions of support that teachers might hope for, in the wide range of their interests and needs. Morton S. Tenenberg (Department of Teacher Education, California State College, Hayward) focuses in this volume on cognitive skills, particularly on helping teachers whose particular students have difficulty thinking clearly. Dr. Tenenberg's experience includes extensive research into this particular facet of the unfolding of PATTERNS in the classroom. Edwin S. Dethlefsen (Department of Anthropology, Franklin Pierce College) presents some of the answers to the questions teachers most frequently ask. As an ACSP staff member from 1965-1969, Dr. Dethlefsen was the Unit Director for the experimental course, "The Study of Early Man," and prepared the corresponding sections of PATTERNS IN HUMAN HISTORY.

Malcolm Collier
Director

STUDENTS AND TEACHERS: STRATEGIES FOR DISCUSSION

MORTON S. TENENBERG

To Earl S. Johnson
who reasoned so passionately
that teaching is
both art and science

INTRODUCTION

Research conducted with classes studying PATTERNS IN HUMAN HISTORY has confirmed that high school students, even at the same grade level in the same school, exhibit an enormous range in the kinds of conceptual knowledge and intellectual skills useful in the course. As a result, any teacher using PATTERNS must shape what is done with particular groups of students to take their initial capabilities into account.

The function of this booklet is to help you make a general judgment about your students' initial learning abilities (that is, find out where they are to begin with in relation to where you hope they will "end up" at various stages in the course) and modify class activities to fit some special needs of students while working within the basic structure of PATTERNS.

For this purpose most of the learning objectives for lessons in the Teaching Plan of PATTERNS can be grouped into two broad categories:

1. increasing the number, scope, and clarity of concepts that students know and are able to make use of in analyzing social phenomena (such as status, adaptation, natural selection);
2. increasing student skills in handling social data (observing, analyzing, categorizing, and hypothesizing, for example).

The sample discussions in this booklet are based on lessons in PATTERNS IN HUMAN HISTORY and each of them centers attention on a particular set of concepts and cognitive skills. The accompanying commentary proposes various strategies for assisting students to clarify their concepts and improve their skills, indeed to increase their awareness of and skill in observing and analyzing social behavior.

This booklet is planned as an extension of the lesson plans and Teacher Background material in PATTERNS—supplements to, not substitutes for, that material. The emphasis throughout is on teaching strategies that will best meet the learning objectives of PATTERNS.

Each segment of sample class discussion illustrates one of the following situations:

1. classroom discussion involving a group of students with high course-related abilities;
2. classroom discussion involving students exhibiting limited or indistinct abilities;
3. discussion carried out by the teacher in a manner inconsistent with the objectives and structure of the course—*these discussions appear in italics.*

Teachers working with PATTERNS IN HUMAN HISTORY for the first time will undoubtedly experience problems. In responding to the challenge of discovering students' level of conceptual knowledge and intellectual skills, you will probably be repeatedly tempted to compromise with the lesson plans that are given for the sake of what might appear to be simpler and speedier procedures. If your students are slow in reaching conclusions that you could easily hand out to them, remind yourself that the time they are taking to discover concepts and draw their own conclusions is an invaluable and indispensable part of the learning process. Their very slowness may be an indication of the enormous number of mental steps they have to take. The route recommended here is admittedly slow. But once your students have reached the desired destination through their own efforts, they will have learned more than if you had merely described that destination for them, because they will have learned how to travel that kind of intellectual route. The method of assisting students to handle social data through their own efforts is the very essence of the whole plan of PATTERNS. It requires patience. The end results will be far more valuable and gratifying than using shortcuts.

Another problem that you must expect to face as a teacher of PATTERNS is coping with the unexpected. Since you are encouraging students to think for themselves, you will inevitably get—from time to time—unforeseen answers to your questions. These are not to be discouraged. Throughout this booklet you will be reminded again and again of the reasons for not rejecting unexpected answers. No serious comment made by a student should be immediately contradicted. If it is indeed an answer to your question, though false, outright rejection can discourage the student's further participation in class discussion, or—even worse—his attempts at thinking. Of equal importance, the unexpected comment may offer an excellent opportunity for developing the very points you are aiming to develop. Can you readjust your own comments quickly enough to take advantage of the situation? (Research in instructional effects presents no evidence that corrective feedback, in contrast to criticism, has deleterious effects on student thinking.)

Don't be overawed by the challenges in this kind of teaching. On-the-spot decisions on how to handle a given class discussion may be quite different from better alternatives you think of later. Nothing that you as the teacher can do, however, need be catastrophic and irreversible. When similar situations arise during subsequent class periods (and they will) you will have a greater range of responses to use and will carry out one of the better alternatives. What counts most of all is your willingness to listen seriously to whatever your students say seriously, to analyze discussions after they occur, and to exercise your conviction that the methods you are using will develop in your students potent skills of permanent value to them.

During the research into the effects of the trial version of PATTERNS, considerable variation was found in the time needed by various classes to work through the lessons. As you would expect, students of high ability in conceptual thinking worked through the activities much more rapidly than students with difficulties in thought organization. For some classes, then, you may have to decide which lessons or activities to omit in order to work within the limited confines of a school schedule. Pressures for omission will probably be greatest in connection with "Origins of Humanness," this being the longest of the four major divisions of the course.

Faced with such pressures, many teachers omit those activities that they predict will take the most time; retain such things as lectures, demonstrations, and other teacher-dominated portions of lessons; and convert student activities for analyzing data into "overview" presentations. Alterations like these are especially inappropriate to the main objectives of PATTERNS IN HUMAN HISTORY. The presentation of information and new ideas, to be sure, can be made very interesting to students and is a fast way to "cover the subject." It does not, however, assist students to acquire more efficient methods for future learning. Most important of all, the very students who need this kind of assistance most do not receive it.

If and when omissions are necessary, which lessons or portions of lessons could be dropped? Perhaps this question is best answered by indicating which lessons should be the last to be dropped. Do not omit any in which students are given visual data—drawings, casts of tools and figurines, site maps, and the like. It is in these lessons that the student's situation is most like that of the anthropologist examining new data and making reasonable speculations. It is precisely in these lessons that students learn and practice various conceptual skills and consolidate them into effective strategies.

Chapter 1
RECOGNIZING DIFFERENCES IN STUDENTS' ABILITIES TO CLASSIFY

The high degree of student participation advocated in the Teaching Plan for PATTERNS IN HUMAN HISTORY means that differences in students' abilities in handling concepts will become especially apparent as various classes undertake the problems assigned. Consider, for instance, the possible variations in student response to the questions asked in Lesson 4 of "Studying Societies: Life in a Small Society":

What is required if a Bushman is to obtain food regularly?

What is required for a Bushman to obtain a sense of security?

Note that these questions are carefully phrased, "*What* is required . . . ?" instead of "What *things* are required . . . ?" In all your questioning, as you try to get detailed answers from the class, try to avoid the term "things." For most people it carries the connotation of something concrete and tangible and might tend to limit your students in their search for appropriate information.

Now assume that all students have read "People of the Kalahari" and that they have seen the filmstrip and heard the record on "The Bushmen in the Kalahari Desert." The objective of this lesson is stated in terms of particular categories:

> If asked to give examples of Bushman adaptation to the Kalahari Desert environment, students will specify various forms of social interaction (e.g., cooperation, sharing) as well as tools, knowledge, and skills.

To meet the objective, therefore, students must know—among other things—how to classify what they know, to fit specific data into general categories, in this case, to select from all the material about the Kalahari Bushmen those specific data that fit into categories of phenomena (tools, knowledge, skills, social interaction) that help Bushmen obtain food regularly or that help them obtain a sense of security.

In the following two samples of classroom discussion on the first question, observe the differences in student comments and their overall progress toward the objective of the lesson. Note evidence for deciding which class is more advanced in its handling of ideas—in this case, in its ability to classify information according to categories that they themselves name and define.

DISCUSSION SEGMENT #1 (The class is about five minutes into the lesson.)

(1) Teacher:	Okay, we've talked a bit about how Bushmen get their food. Now, what is *required* for Bushmen to obtain food regularly? What *must* they have?
(2) Student 1:	Bows and arrows.
(3) Teacher:	*Must* it be bows and arrows?
(4) Student 1:	No. I guess they could use something else.
(5) Teacher:	Like what?
(6) Student 1:	Stones.
(7) Student 2:	A slingshot. (Class laughs)
(8) Student 3:	What's wrong with a slingshot?
(9) Student 4:	Nothing. I once read about some people who used something like a slingshot and stones very effectively to kill their enemies.

(10) Teacher: Okay. If the Bushmen could have used slingshots, or bows and arrows, or even something we haven't mentioned, then what *must* they have in any case?
(11) Student 5: Some way of killing animals. Something to kill animals with.
(12) Teacher: What would you call these?
(13) Student 5: Animal-killers. (Laughter)
(14) Teacher: Or?
(15) Student 6: Weapons.
(16) Teacher: Okay. Which of all these things we listed on the board are weapons?
(17) Student 2: Bow and arrow, spear.
(18) Teacher: Anything else?
(19) Student 7: A snare.
(20) Student 2: A snare's not a *weapon*!
(21) Student 7: You can kill an animal with it. Or at least you can capture the animal so it's easy to kill.
(22) Teacher: Good point. Will any kind of weapon be all right? Remember we want to figure out what is needed to get food *regularly*.
(23) Student 5: Well—you know, they have to be good ones. Like, they have to work well.
(24) Student 7: They have to be strong enough for the animals around there.
(25) Student 8: They have to be fast and accurate.
(26) Teacher: Okay. Would you put anything else with the bow and arrow, spear, and snare?
(27) Student 1: Digging sticks.
(28) Several students: No. That's not a weapon.
(29) Teacher: Okay. Hold on, hold on. George?
(30) Student 6: A digging stick isn't a weapon. They dig up roots and things with it.
(31) Teacher: Judy, is that what you were thinking about when you said "digging sticks?"
(32) Student 1: No. I was thinking that a digging stick is something else that's used to get food.
(33) Teacher: Well, can we refer to *all* of these as weapons? What might be a better name for them? Judy?
(34) Student 1: Tools.
(35) Teacher: Does that "sit" okay with everyone?
(36) (The class agrees that the term "tool" is appropriate. Several members of the class want to include leather karosses as "tools" and argue that they assist in the collection of food. The teacher points out that the word "tool" usually refers to more than just those things used to get food, and the class suggests using the more restrictive term "food-getting tools." This prompts a student to comment that *all* Bushmen tools are used in getting food.)
(37) Teacher: Okay. Up to this point all we've been talking about are *tools* for getting food. What must the Bushmen have in order to have these tools?
(38) Student 9: Materials to make them with.
(39) Teacher: Right. What else?
(40) Student 4: They have to know how to make the tools.
(41) Teacher: Like what?
(42) Student 4: They have to know how to make bows and arrows and spears.
(43) Student 7: And karosses. And they have to know how to skin an animal to get the hide. And how to make the hide into leather.
(44) Teacher: What else do they have to know how to do to get food regularly?

(Students mention a number of activities: how to track game, "read" desert signs, smoke meat, train dogs, make poison, shoot an arrow accurately.)

(45) Teacher: Before this we talked about a number of *tools* the Bushmen used for obtaining food regularly. What term can we use to cover what we've just been talking about—knowing how to make bows and arrows and karosses, and all the other "how to" points you've mentioned?
(46) Student 3: Knowledge, or ability.
(47) Student 6: Wouldn't *skills* be the best word?

(The class agrees that the most appropriate term here is *skills*.)

(48) Student 4: Well, another skill they have to have is knowing how to trade.
(49) Teacher: Why do you say that?
(50) Student 4: They use metal arrow tips and they get them by trading.
(51) Teacher: Good point. Let me ask this. You've been talking about what helps Bushmen to get food regularly. Now, how do you decide whether this or that really helps? Like bows and arrows, or trading?
(52) Student 4: Well, you ask yourself, "What would happen if the Bushmen didn't *have* that or *do* that?"

The next sample of class discussion is on the same subject but with a different class. This discussion starts at point (37), where the teacher seems to be trying to shift the discussion from "tools" into some relevant but distinctly different category—"skills," for instance.

DISCUSSION SEGMENT #2

(37) Teacher: Okay. Up to this point all we've been talking about are tools for getting food. What must the Bushmen have in order to have the tools?
(38) Student 1: Materials to make them with.
(39) Teacher: Right. What else?
(40) Student 2: Wood and leather.
(41) Teacher: Okay, they need those materials. But what else do the Bushmen need in order to make tools?
(42) Student 3: You mean, like the rope for snares?
(43) Teacher: Well, you're right; they need rope, as well as wood and leather, to make their tools. But what do they need besides materials?
(44) (Silence)
(45) Teacher: What does a Bushman need, in addition to the materials he uses in order to make a bow and arrow, for instance?
(46) (Silence)
(47) Teacher: Can somebody describe a Bushman making an arrow? How might he do it?
(48) Student 2: Well, he might take a stick and cut off all the knobby parts and then cut some feathers and glue them on the end of the stick.
(49) Teacher: Doesn't he have to know how to do all those things?
(50) Student 4: Oh—is that what you mean? Why didn't you just tell us?
(51) Teacher: How are things like knowing how to cut off knobby parts and put on feathers different from wood and leather and feathers and rope?
(52) (Silence)

(After some hesitation the class concludes that the "knowing how" items concern what the Bushmen *do* to get tools instead of *what materials* they use.)

After reading these two samples of class discussion, have you any doubt about which group is more advanced with conceptual thinking? At what points in Discussion Segment #1 do the students show their skill in: Formulating particular categories relevant to the discussion? Identifying the "boundaries" of a category—the criteria used for deciding whether or not a particular item belongs in that category? Why is the debate about the digging stick profitable? Why are these students willing to include a kaross in the category "tools"? Students who have difficulty in applying abstract criteria to phenomena are often reluctant to classify a kaross as a "tool,"

because it is soft and pliable and made of leather and their own experience has been that the word "tool" is used to refer only to objects made of harder, nonyielding materials. In Discussion #1, however, the students are not in the least hesitant about using a particular function of the kaross as the criterion for classifying it as a "tool." We can easily imagine one of these same students pointing out at a later stage in the discussion that "social interactions" can function as "tools," and that we can place karosses and spears, knowing how to skin animals, and cooperative hunting techniques into a single, more inclusive category because they all are man-made in some sense and all help the Bushmen to get food regularly.

The students in Discussion Segment #2, in contrast with those of Segment #1, seemed confused about where one category ends and another begins. Why do you think they continue to name *materials* of which tools are made instead of moving on easily (as the other class does) to another category—like *skills*? Could the teacher have guided these students better by a different kind of questioning? Why does the question at point (47) ("Can somebody describe a Bushman making an arrow?") bring a more profitable response than the previous questions? What is the significance of the student's annoyance at point (50) ("Why didn't you just tell us?")?

In Discussion Segment #2, the class's frequent lapses into silence appear to be the result of just not knowing how to answer the questions, perhaps a consequence of not understanding what they mean. Lapses like these should be recognized as a sign that the teacher needs to change the approach, to alter in some way what is being done. Sometimes, however (as you are reminded in the Teacher Background), silence should be encouraged as a way of taking time for careful thought. "Thoughtful" silence and "confused" silence are difficult to distinguish in printed dialogue; during a live or videotaped lesson, however, most teachers easily make the distinction due to evidence from students' facial expressions and voice intonation.

As a teacher of PATTERNS, you need especially to recognize how adept your class is in classifying phenomena into distinct conceptual categories and adapt your procedure accordingly. Never lose the conviction that *what you do* can affect the organization and clarity of your students' concepts.

Chapter 2

CLASSIFYING: BY DIRECT OBSERVATION AND BY INFERENCE

Here are some classifying questions that might arise during Lesson 4 of "Studing Societies—Life in a Small Society: Description" (see Discussion Segments #1 and #2): Is a slingshot a weapon? Is a snare a weapon? A hunting tool? Is a kaross a tool? Are weapons tools? Is knowing how to skin an animal a skill? All of these can be expressed in a general form:

> Is X (an item or group of items) an example of Y (some larger group or category) (e.g., Is a snare X a hunting tool Y?)?

Sometimes an alternate form of this question may be used: Does X have characteristic Y—the characteristic being a criterion for the category Y? For instance, is a snare X *useful*, as all *tools* Y are? The task can be visually represented like this:

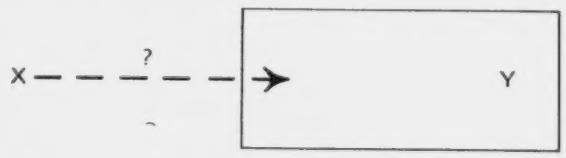


Figure 1.

where X is whatever is to be classified and Y is the category (or group) into which it *might* fit, with the question mark signifying that a decision is to be made about whether X can be properly included in Y.

Consider this bit of classroom discussion:

DISCUSSION SEGMENT #3

(1) Teacher:	Okay, we've said that Bushman spears and arrows are weapons. What is it that tells us they are weapons?
(2) Student 1:	They use them to kill animals.
(3) Teacher:	Is that what a weapon is—something used to kill animals? What do you think of when you hear the word "weapons"?
(4) Student 2:	When I think of weapons I think of guns, knives, rifles, bombs, and things like that. Things you fight with.
(5) Teacher:	Well, then, can we say that Bushman spears and arrows are weapons?
(6) Student 3:	They don't really fight with them.
(7) Student 1:	Well, in a way they do. They're fighting animals.
(8) Student 3:	But the animals don't fight back. It's not really a fight.
(9) Teacher:	What else could we call Bushman spears and arrows? A name that refers more exactly to the way *Bushmen* use these things?
(10) Student 4:	How about "hunting tools"?
(11) Teacher:	Okay. What other "hunting tools" do Bushmen have?

(12) Student 5: Snares.
(13) Teacher: What is it about a snare that tells you it is a "hunting tool"?
(14) Student 5: Well, it helps in hunting.
(15) Teacher: How?
(16) Student 5: It catches animals that can run fast and holds them.
(17) Teacher: Okay. Any other "hunting tools"?
(18) Student 2: What about a digging stick?
(19) Teacher: Well, what about a digging stick? What tells you whether or not it is a "hunting tool"?

In this discussion segment, how has the teacher guided the students to determine whether or not Bushman spears and arrows are weapons, whether or not snares and digging sticks are hunting tools? Note how in each case the teacher gets the students to tell what it is about the item (X) that allows it to be included in the category (Y)—in other words, to determine whether the item meets the criteria for inclusion in that category. Responses to the teacher's questions have led the students to classify various items on the basis of how Bushmen use them—in other words, their function. Though from their own background they would classify spears and arrows as weapons, they find on examination of the criteria for weapons that in this situation another group name—hunting tools—would be more appropriate, since their function in Bushman life is to aid in hunting.

CLASSIFYING BY CONCRETE, OBSERVABLE CHARACTERISTICS

Classifying tasks vary, of course, in levels of complexity. The simplest kind is illustrated below:

DISCUSSION SEGMENT #4

(1) Teacher: How would you describe a Bushman digging stick?
(2) Student 1: Well, they are about two or three feet long.
(3) Teacher: Okay. What else?
(4) Student 2: One end is pointed.
(5) Teacher: All right. Anything else?
(6) Student 3: It's made out of wood.
(7) Teacher: Fine. What are some other things Bushmen use that are made of wood?
(8) Student 4: Spears, bows, arrows, pipes.
(9) Teacher: Okay. Now would someone describe a kaross for us?
(10) Student 5: They're made of leather.

Although in this example students have been asked merely to describe two items, note that their answers do place the items in particular categories. In other words, students are classifying items on the basis of directly observable characteristics. A kaross (an X) belongs to a larger category (Y) that are all made of leather. A digging stick (another X) can be placed in a category (Y) with all other items about "that length"—or another category (Y) that are all pointed, or still another (Y) that are all made of wood. Thus simple description of an item is a type of classifying.

Classifying by description may be based on one, single physical property at a time—two or three feet long, pointed, made of wood, made of leather, and so on. Most high school students can, of course, perform simple classifying tasks based on observing one concrete property of an item. Nonetheless, there is considerable variation in the *number* of physical features students will mention in describing both familiar and novel objects. Where one student, without prompting, will mention color, shape, size, material, texture, and number of parts, for instance, another student may merely refer to the color and shape. (Sometimes the failure of a student to describe adequately or classify an item by enumerating its physical properties can lead to his overlooking the very property of the item that will make it possible to solve a more complicated problem.)

CLASSIFYING BY INFERENCE

A second general type of classifying process is considerably more complex than the kind based on the observation of concrete characteristics. In this kind of classifying, students must make inferences about particular phenomena and then classify each on the basis of the inferences. Note the several examples in the following discussion.

DISCUSSION SEGMENT #5

(1) Teacher:	What I hear you saying is that a good food supply contributes to a Bushman's sense of security. What else would give him a sense of security?
(2) Student 1:	Well, whatever helps him get food—hunting tools, dogs, snares, cooperating in hunting, skill in the forest, and all that.
(3) Teacher:	Right. But we're still talking about his food supply, in one way or another. What gives a Bushman a sense of security but *not* just because it helps him have enough food? For some other reason? (Long silence)
(4) Teacher:	Well, maybe we can approach this another way. What makes you or people you know feel secure?
(5) Student 2:	When you know all the answers on a test! (Laughter)
(6) Teacher:	All right. What's secure about that?
(7) Student 2:	You know you're going to get a good grade.
(8) Teacher:	Okay. And . . .
(9) Student 2:	Well, you know, it feels good. You don't have to worry about it or anything.
(10) Teacher:	Okay. What else makes you feel secure?
(11) Student 3:	When other people like you. When you have friends.
(12) Student 4:	When you have someone you can really talk to.
(13) Student 5:	It's when you feel good.
(14) Teacher:	You mean like the way you feel on a sunny day—like getting up on a Saturday and it's a beautiful day and there's no school?
(15) Student 5:	No, not that. It's when you feel good about yourself. When you've got it all together.
(16) Teacher:	What does that mean?
(17) Student 6:	When everything fits for you. When you feel things can't get you down because you know what you're doing. It's hard to put into words.
(18) Teacher:	You seem to be doing it very well. Anyone else?
(19) Student 7:	It's when you're not worried about things. You kind of know things will work out okay.
(20) Teacher:	Okay. Let's look at the Bushmen. We're asking what helps *them* not to worry, to feel things are right and will work out okay, what helps *them* "get it all together."
(21) Student 3:	Well, they live in very small groups. They're very close to each other and help each other a great deal.
(22) Teacher:	How does that help a Bushman have a sense of security?
(23) Student 3:	Well, he knows he can depend on the others if he gets in trouble.
(24) Teacher:	Is there any other way that the size of the groups Bushmen live in might contribute to their sense of security?

This discussion segment illustrates one of the many possible directions the class might follow in answering the second question in Lesson 4. Note that, whatever specific avenue the discussion might pursue, it would be impossible to determine whether any particular element of Bushman life contributes to a sense of security by merely observing concrete characteristics. Both the feeling of security for a Bushman and whatever contributes to it must be inferred from more observable data.

In the portion of class discussion just presented, how does the teacher assist his students to identify for themselves what is meant by "sense of security"? In other words, to "locate the boundaries" of the Y, concept "sense of security," and to identify the criteria for determining whether any phenomenon, X, can be included in the category of items that contribute to this feeling? Was the teacher wise to accept students' colloquial expressions about how it feels for them to have a "sense of security"? Or should he have pushed for more exact wording? Do you think their reporting their own familiar feelings would help the students identify aspects of Bushman life that might contribute to a similar feeling among people of so different a culture?

The diagram used earlier to illustrate all classifying tasks, page 9, has been modified below to indicate the addition of inferring:

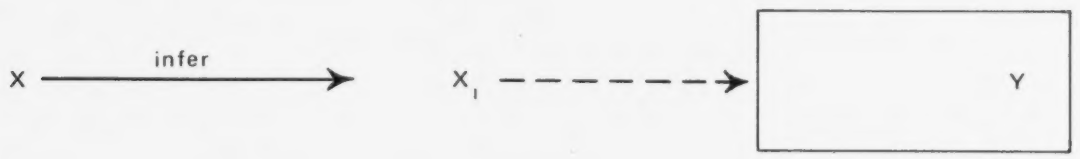


Figure 2.

Here X_1 stands for an inferred characteristic of the object or other phenomenon represented by X. The decision as to whether or not X properly belongs in Y depends upon the inference X_1.

Using *function* as a basis for classifying X—as the students used it in Discussion Segment #1—is more complex than using easily observable physical properties of X. Often the function must be inferred (as with primitive artifacts not explained in pictures or writing), but the function of the Bushman's kaross (gathering nuts) was illustrated and described in the filmstrip "The Bushmen in the Kalahari." What if a picture of a kaross *not* in use were shown, without written or recorded explanation? Clearly, the relationship known as *function*, which is a frequent basis for classification, may be either observed or inferred.

Chapter 3

APPROACHING THE UNFAMILIAR FROM FAMILIAR GROUND

To help students overcome difficulties and confusion in classifying new or novel phenomena, one of the most useful teaching strategies begins with leading them onto familiar ground. After a student has reorganized familiar thoughts, he can extend these reorganized familiar thoughts to the task of classifying novel phenomena. The pieces of discussion that follow have been selected from the larger segments already quoted to point up the repeated use that has been made of questions for leading students into various areas of familiarity.

From DISCUSSION SEGMENT #4

(1) Teacher: How would you describe a Bushman digging stick?
(2) Student 1: Well, they are about two or three feet long.
(3) Teacher: Okay. What else?
(4) Student 2: One end is pointed.
(5) Teacher: All right. Anything else?
(6) Student 3: It's made out of wood.

Asking students to describe the physical features of items is one way of getting them onto familiar ground. It is familiar ground because it allows the student to pick out features that he easily recognizes from previous experience and learning. Though he may not know how some novel item is used, its "pointedness" is a familiar quality. As noted in an earlier chapter, students—if unaided in giving a description of something—can be expected to vary in the number of characteristics they mention. Even limited descriptions, however, of the kind given by these three students can be used to advantage, for they mean you must call on more than one student to arrive at a full listing of observables, thus helping to maximize student participation. Simple responses by the teacher, acknowledging each comment and asking for more, can result in increased input from students who are intimidated by more complex mental tasks but who will easily describe what they hear and see, once they are convinced that they are being genuinely encouraged to do this.

In prompting students to describe the observable qualities of a phenomenon, be careful not to confuse the class by inadvertently giving a negative reaction to an unanticipated answer. *Avoid this kind of reaction*:

Adapted from DISCUSSION SEGMENT #4

(1) Teacher: How would you describe a Bushman digging stick?
(2) Student 1: Well, they're about two or three feet long.
(3) Teacher: Okay. Anyone else?
(4) Student 2: They're pointed—you know, sharp on one end.
(5) Teacher: All right. Anything else?
(6) Student 3: Well, the one in the filmstrip looked kind of white in color.
(7) Teacher: What does that have to do with what we are talking about? What does that have to do with what the Bushmen use a digging stick for?

By challenging the appropriateness of Student 3's answer, the teacher discourages his future participation. The student might say to himself: "The teacher said to describe the thing and I did, and I was still wrong; so why should I say anything?" In point of fact, the answer at (6) was quite appropriate because it answered the teacher's request for description.

Furthermore, an unanticipated answer might bring out a point of some value that you have overlooked. In this case, for instance, the color of the digging stick *might* actually be related to its use. Observing its color and the texture of the surface might lead to the inference that bark has been stripped from the original wood, a practice intended to protect the hands of the user. In this case, no observable quality should be initially rejected, for every genuine observation is potentially relevant. Later in the discussion, students will learn how to determine for themselves whether or not any given observation is indeed relevant. An important purpose of this whole course is to have students learn how to make judgments of this kind. Shifting students onto familiar ground—describing physical characteristics that they can actually see, for instance—is only the first stage of a larger strategy designed to improve their ability to classify new phenomena. If students are "turned off" at this point by negative reaction, subsequent steps are likely to be unsuccessful.

Getting students onto familiar ground is especially useful when dealing with the more complex undertaking of classification by inference. In the following discussion note the question used by the teacher to lead the class onto familiar ground:

From DISCUSSION SEGMENT #5

(3) Teacher: What gives a Bushman a sense of security but *not* just because it helps him have enough food? For some other reason? (Long silence)
(4) Teacher: Well, maybe we can approach this another way. What makes you or people you know feel secure?
(5) Student 2: When you know all the answers on a test! (Laughter)
(6) Teacher: All right. Why does that make you feel secure?

By referring to the larger discussion from which this segment was taken (p. 11), note how this question and those that followed helped students discover that a characteristic of sense of security for them was the absence of worry. Having now identified and organized their own familiar feelings, the class could reexamine the original problem concerning Bushmen and search for practices that reduce worry among Bushmen. Whether or not the teacher had foreseen that the class discussion would lead to the particular relationship that security reduces worry is unimportant. The familiar concept became useful for answering the question with which the class had been having some difficulty: What is required for a Bushman to have a sense of security?

Suppose the class has difficulty identifying their own feelings of security. Note how the teacher manages such a situation.

Adapted from DISCUSSION SEGMENT #5

(The discussion has been in progress for several minutes.)
(1) Teacher: We seem to have some confusion over what sense of security means. Let's get at it another way. How do you feel when you feel *in*secure?
(2) Student 1: You don't feel good.
(3) Teacher: Okay. But just what do you mean when you say that? Do you mean you feel angry?
(4) Student 1: No—you feel funky. Not right.
(5) Teacher: All right. Then, some of our feelings are unpleasant, and feeling insecure is one of them, but it isn't the same as anger. How is that feeling of insecurity different from anger, or other unpleasant feelings?
(6) Student 2: When you're angry, it's all right there. You want to get it out. When you're feeling insecure, you're kind of pulled in.
(7) Teacher: Can you think of any time you felt that way that you would be willing to tell us about?
(8) Student 2: Sure. When my mother was in the hospital—she was real ill. She almost died. I was scared, because I didn't know what would happen. I cried and kept to myself.
(9) Teacher: You felt insecure?

(10) Student 2: Yes.
(11) Teacher: Would anyone else be willing to tell us about a time when you felt insecure?
(12) Student 3: The first day in this school.
(13) Teacher: Why was that?
(14) Student 3: Well, I didn't know anybody. And I got lost five times. (Laughter) My program was goofed up, and I didn't know where the rooms were. So I had an awful time getting to classes.
(15) Teacher: How did you feel?
(16) Student 3: Like I wanted to go home! (Laughter) Where I knew my way around!

(After at least one more example of a student's feeling of insecurity, the feeling is analyzed, and the teacher finally summarizes student observations.)

(17) Teacher: Very interesting comments. So feelings of insecurity seem to be ones where you worry about unpleasant things that could happen but you're not sure they will. How does that seem to the rest of you? (A number of students nod in agreement) Now let's turn that around and ask what a feeling, or sense, of *security* is. How do you feel when you feel secure?
(18) Student 4: Safe. Not worried.
(19) Student 5: You know what's going to happen, and it's not bad.

How would you handle the discussion from here on? Would you ask the class to speculate now on what would make a Bushman feel worried about unpleasant things that might happen? Or would you insist on a more precise definition of a sense of security? Would you ask students to give familiar instances now of that feeling, or merely proceed to the feeling among Bushmen?

Asking students to imagine specific situations ("Can someone describe a Bushman making an arrow? How might he do it?") is another way of getting them onto familiar ground. Imagining themselves in a particular role—the Bushman needing some tool for getting food—involves their use of familiar concepts (" . . . take a stick and cut off all the knobby parts . . .") to arrive at less familiar ones—in this case, the skill that would be needed. Having described the actual steps that a Bushman might take, the student will be better able to identify the difference between such processes and the arrows themselves, in other words, to find the boundaries of (the criteria for) the category *skills* as distinguished from the category *hunting tools*.

To avoid useless flights of fancy—from students who associate imagination with only the fantastic—you might need to preface invitations to imagine anything with the explanation that this is to be imagining realistically, not imagining the fantastic, since its purpose is for the students to put themselves into the actual role suggested, to try to imagine as accurately as possible what would happen in a given situation, to discover what they might observe and how they might feel or act if they were actually in the role they are now imagining.

Keep in mind always the importance of leading your students onto familiar ground through questions, rather than trying yourself to supply the familiar information that you expect them to bring out. For one thing, your assumptions about what is familiar to your student could be grossly inaccurate! In any case, your giving them the information couldn't possibly be as valuable to them as their discovering it themselves by thinking about answers to your questions. Occasionally you might further their thinking by proposing brief analogies and vivid verbal cues, but suppress any temptation to give elaborate descriptions and imaginative presentations of the topic, however entertaining and interesting these might be. You can contribute to keeping your students in a state of arrested intellectual development by too much giving and too little asking. When students work from what they have experienced and know, they are more likely to be engaged in active thinking, and the potential for conceptual reorganization—even of novel phenomena—will be enormously increased.

In summary, the first step in a useful strategy for developing conceptual clarity is to lead students onto familiar ground—by calling for description of some observable phenomenon, by asking students to identify and describe their own feelings, by requesting students to engage in realistic imagining. This "leading" has more potent effects on student thinking when prompted by

questions rather than statements. After familiar notions have been identified and organized, the criteria that emerge can then be applied to classifying new phenomena.

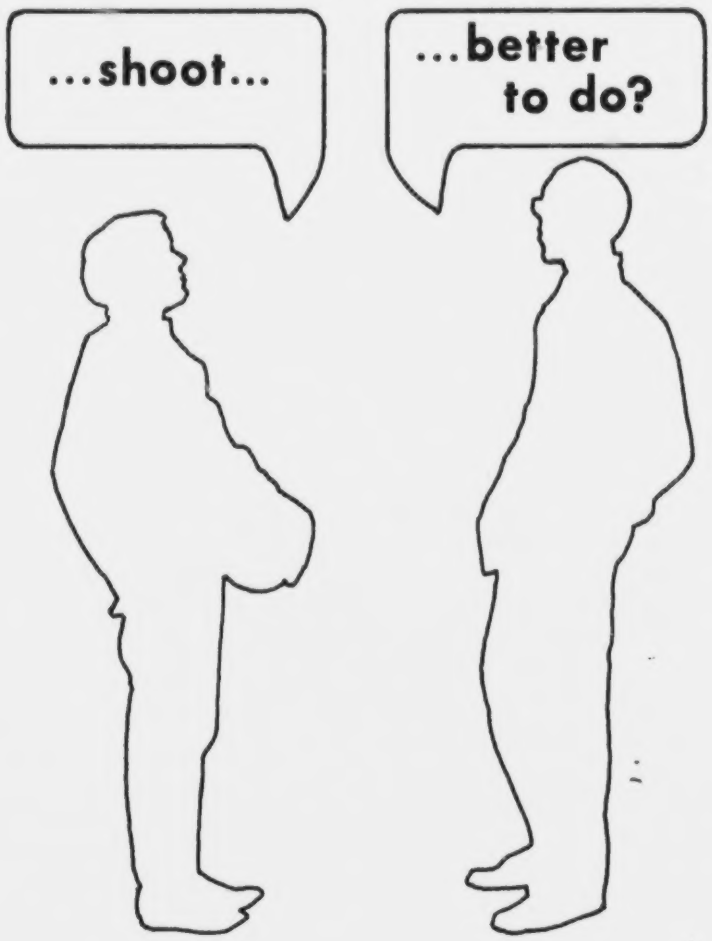
Chapter 4

EXPECTING THE UNEXPECTED

In helping students understand the idea of status (and the role that is attached to each status), you need to be especially prepared to expect the unexpected response. As usual, you will be wise to approach each class discussion with no hard-and-fast, preconceived notions about what to expect in student answers to any of your questions.

How Do You Talk to Who?

For example, Lesson 1 in "Studying Societies, How Human Societies Operate, The Function of Status and Role," might go like this:



DISCUSSION SEGMENT #6

(1) Teacher: Does anyone have a comment on this? What's going on here?

(2) Student 1: Two students are talking. One is asking the other one to play basketball.
(3) Teacher: All right. Is everything okay?
(4) Student 2: No. The black fellow is miffed. And he's letting the white fellow know it.

If you have never taught this lesson before, Student 2's comment might seem to you a sure sign of impending disaster for the whole lesson. Since the Teaching Plan describes the first combination of transparencies as containing "nothing too surprising," you expected little in the way of response from your students—certainly not the response given here. How could you best handle this kind of unexpected comment? *Don't reject the remark or criticize it adversely; at all costs, avoid this:*

(5) Teacher: That's an interesting answer. But I think you are misinterpreting the situation. The black student isn't angry or annoyed at what the white student said. He's just making a comment. Let's go on to the next one.

A negative reaction to an appropriate student comment (one which in fact is an answer to the question actually asked), no matter how gentle the tone of voice used, inadvertently discourages the student from responding in the future. The result of such rejection can be confusion, mistrust of oneself and the teacher, disinterest.

In reality here is an excellent opportunity to make use of a student's own familiar ground. At point (4) Student 2 clearly indicates that as far as he is concerned the white student in the situation has indeed said something inappropriate for the situation in the eyes of the black student. Instead of rejecting or ignoring his unexpected comment, why not invite him to say more, to explain what he meant by his response? Could you get him to indicate what criteria he believes the black student is using in interpreting the white student's remark, or what criteria he (Student 2) is using? Instead of ruining the discussion, this incident could be a key one in developing it. Here is a sample of an advantageous continuation of the discussion:

DISCUSSION SEGMENT #7

(1) Teacher: Does anyone have a comment on this? What's going on here?
(2) Student 1: Two students are talking. One is asking the other one to play basketball.
(3) Teacher: All right. Is everything okay?
(4) Student 2: No. The black fellow is miffed. And he's letting the white fellow know it.
(5) Teacher: Why is he miffed? Tell more about it.
(6) Student 2: White kids don't do that kind of thing. The white student was putting the black student down.
(7) Teacher: What should the white student have done?
(8) Student 3: He should just be quiet.
(9) Teacher: What if the white student really wanted to "shoot a few" and nobody else was around and he really meant it when he asked?
(10) Student 3: He wouldn't do that. He'd go home. Blacks and whites don't do things like that together here. If any of his white friends saw him playing with the black fellow, he'd be in trouble.

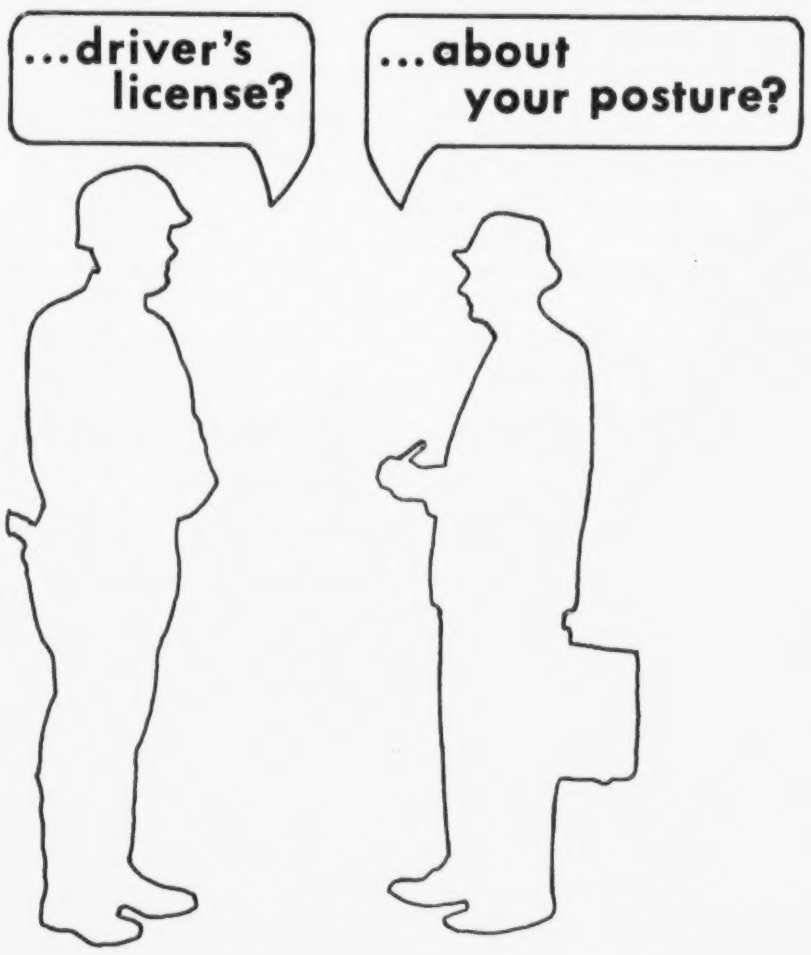
At this point, what are some of the directions you might follow? Would learning about status and role be furthered in any way by your asking for other examples of behavior expected of whites toward blacks at the school and vice versa? Could it be that "white student" and "black student" are status names in your school? Just how much you develop this particular comment would depend on many variables—including the degree of emotionality being expressed by class members and the kind of rapport that you have previously achieved with them. But don't spend too much time here. Be sure to have students examine several combinations of people, not just this one, before attempting to have them identify the common feature—inappropriate dialogue resulting from *who* people are. At an appropriate moment you can introduce the term "expected behavior" if class members have not already done so.

Whatever student response proves to be—amusement, anger, disapproval, or surprise—whether predicted in the Teaching Plan or not, ask yourself what insight this response might provide to the

social fact that people carry around rules for how others should act and that the rules differ depending on *who* the others happen to be. Student laughter, expressions of surprise, or negative responses—even when least expected—are indications that in the perceptions of the students (his familiar ground) some rule (expectation) for conduct has been violated. Drawing from them the rule or expectation that they think has been violated and the class of *who's* toward whom it applies furthers the whole purpose of this lesson.

During your questioning about appropriateness of the dialogue in various transparency combinations, you might get another kind of unexpected response—the "It depends" answer, like, "If these two people are friends, then it's okay. If they're not friends, it's not okay," often preceded by the comment, "It depends." If you have understood the idea of status and role as discussed in the beginning lessons for "How Human Societies Operate: The Significance of Status and Role," you will welcome the appearance of an unsolicited "It depends." The student, in his own words, is setting up the expectations and violations to which these lessons are devoted.

The following discussion segment illustrates advantageous use of an "it depends" response.



DISCUSSION SEGMENT #8

(1) Teacher:	I noticed a few smiles about this one. What's funny?
(2) Student 1:	Well, the businessman is telling the policeman that he has poor posture.
(3) Teacher:	What's funny about that?
(4) Student 1:	People don't talk that way to the police. The policeman asked to see his driver's license and he answered by making a funny remark.
(5) Teacher:	What's he really telling the policeman?
(6) Student 2:	To get lost! (Laughter)
(7) Teacher:	Why is everyone laughing?

(8) Student 3: You're not supposed to tell the police to get lost.
(9) Teacher: Okay. How is that situation like the last two we looked at—the policeman commenting on how cute the businessman's outfit is and the woman asking the student if he wants to "shoot a few"?
(10) Student 4: Someone is saying something they're not supposed to say.
(11) Teacher: Right. Anything else?
(12) Student 5: Wait. The businessman could be saying something that fits okay.
(13) Teacher: How is that?
(14) Student 5: Well, the man might be the policeman's doctor. Then it would be okay for him to say that.
(15) Teacher: What do the rest of you think about that?
(16) Student 1: If the man is the policeman's doctor, it still doesn't fit. Because the policeman asked to see his driver's license. So it's not what he should do.
(17) Teacher: What should he do?
(18) Student 1: Show him his driver's license.
(19) Student 6: That depends. If the policeman is a friend, then he just might be joking around by asking him for his license.
(20) Teacher: Okay. If the policeman is the other man's friend and the other man is the policeman's doctor, you're saying that the comments "fit" here. If that's the case, then what determines whether the comments "fit" in a situation?
(21) Student 7: It depends on who the people are.
(22) Teacher: What do you mean by that?
(23) Student 8: You know, what they have to do with each other. What they mean to each other.
(24) Teacher: Let's go back to some of the other situations and see if that idea works for them . . .

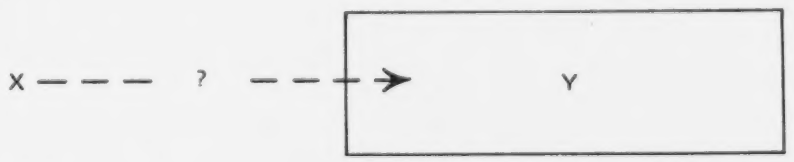
But in the following discussion the teacher *failed to use* the unexpected response profitably.

DISCUSSION SEGMENT #9

(12) Student 5: Wait. The businessman could be saying something that fits okay.
(13) Teacher: How is that?
(14) Student 5: Well, the man might be the policeman's doctor. Then it would be okay for him to say that.
(15) Teacher: That's an interesting comment. Do you think the man is the policeman's doctor?
(16) Student 5: I don't know.
(17) Teacher: Do you think he probably is or probably isn't.
(18) Student 5: Well, he probably isn't.
(19) Teacher: Yes, there's not much there to suggest he is a doctor—although he might be. Let's go on. Try to figure this out: in all the examples we've had, sometimes the comments "fit" the situation and sometimes they don't. What determines whether or not they fit?

When Is A Status?

Another likely source for unexpected answers comes later, in the next lesson: deciding which names on the Status Names list refer to actual statuses—obviously a more complex classifying job than deciding whether a Bushman's kaross is a tool. Yet the same mental process is involved. As in Figure 1 (page 9),



Here X becomes any name on the list, whereas Y is the category *status*.

Probably the "simple two-part test" offered in the Teaching Plan, "Suggested Procedures" (p. 20), would best clarify the criteria for the category status:

1. Do we expect particular behavior of an individual thus characterized?
2. Does the individual thus characterized have expectations regarding behavior toward him/her?

To underscore the significance of *we* in the first question, there might be a third question: Is the expectation *common* in our society as a whole? Students need to recognize that their individual expectations of a person named on the list (e.g., bald person, blind person) do not qualify the name for the category *status* unless their expectations are shared by many people.

At the same time, you as teacher need to be open to persuasion: if unexpected answers justify a new classification in your mind, don't hesitate to recognize the realignment. The best procedure might be for you to assume that every name on the Status Names list potentially refers to a status—in other words that there are no predetermined correct or incorrect answers. There are, however, predetermined criteria to be used: if the criteria are met by a given name, that name refers to a status—that is, the particular X being considered belongs to the category Y status; if the criteria are not met, it does not refer to a status. The function of the class activity is not to find right answers, but to learn and practice right procedures.

As with other conceptual tasks in this course, the degree of effort needed for learning the procedures will vary according to students' previous skill in handling abstract problems. Many students, without realizing it, learn the criteria for status and intuitively apply them accurately, whereas others, especially those with poorly organized concepts, will need considerable guidance and practice. In the following discussion sample, note particularly how the teacher carries the students forward by means of helpful questions, activating student involvement and response.

DISCUSSION SEGMENT # 10 (based on Lesson 2)

(1) Teacher:	Let's try a few words on the list together so you can get the steps down. Let's try the first word "mother." The question is: Is the term "mother" a name for a status? The first step is always the same—ask yourself this question: "Do we expect particular behavior of the group referred to by the word?" In this case, do we expect "mothers" to act in particular ways? Well, do we?
(2) Student 1:	Mothers are expected to be nice and kind and understanding and that sort of thing.
(3) Teacher:	All right. Anything else?
(4) Student 2:	They're expected to cooperate with their husbands. You know, "love, honor, and obey."
(5) Teacher:	Is that an expectation for *mothers*?
(6) Student 3:	That's an expectation for wives.
(7) Teacher:	That's right. It doesn't help us in deciding whether "mother" is a status because we are searching for expectations specifically for "mothers." In this case it is not an expectation specifically for mothers. What about the expectation to be nice and understanding?
(8) Student 4:	Well, lots of other people are expected to act that way. I guess everybody is.
(9) Teacher:	Is there anything about being that way that applies specifically to mothers? Try to think of an actual situation.
(10) Student 5:	There's a TV commercial where a little kid gets a cut and goes to his mother because it hurts and she knows just what to put on it.
(11) Teacher:	Okay. That's a good example. How is that different from just anybody being nice to just anybody else?
(12) Student 5:	Well, it's her little boy.

(13) Teacher: Right. So we can say that mothers are expected to be nice, gentle, understanding, kind, and so on, to their own children. When they are nice, let's say to their neighbor down the street, it is not as a mother but as a neighbor. So "mother" seems to be a status position. Why?

(14) Student 3: Because there are expectations that apply to mothers just as mothers.

(15) Teacher: Right. Now, there is one thing we must be careful about. And that is we must be certain that mothers are not part of some other group that is supposed to act kind and gentle and so on to their children. Like the group called "parents." Is there some particular or special expectation about the behavior of mothers—in contrast to fathers—toward their children? Are fathers expected to be gentle, kind, understanding?

(16) Student 6: Not as much. Like that TV commercial. You don't see many commercials where the father is putting a bandage on, or feeding the kids. In another commercial in Denmark or Sweden, I can't remember which, the mother and father switch jobs and by the end of the first day the father is completely knocked out.

(17) Teacher: How many saw that one? That's a good one for suggesting other expectations for mothers. What's another expectation?

(18) Student 4: Giving the babies their baths. Mothers are the baby bathers. (Laughter)

(19) Teacher: Okay. Then I guess the word "mother" *is* the name for a status, isn't it. Remember the procedure: First ask if there are particular behaviors expected for that group. Then check it out to see that it's for *that* group and not some larger group.

An added criterion used here is whether the expectations apply *only to mothers*, or to some larger group ("parents," for example, or "wives") of which "mothers" are only one sub-group. An expectation applying to mothers only as a part of the larger group cannot be used as evidence that the term "mother" refers to a status.

Note that the teacher in this discussion has restated the procedures—the criteria to be followed at various points, giving the students considerably more guidance than in the examples of less complex classifying. The teacher *presents* the criteria repeatedly; the students *practice their application*. Note, too, how often the teacher uses the familiar strategy of steering the students onto familiar ground.

Student comments based on even highly individual experience, no matter how unanticipated, can be used to advantage if you have assumed that there is no predetermined correct classification for any item on the Status Names list and concentrate on helping the students apply the necessary criteria. *Avoid this kind of reaction:*

DISCUSSION SEGMENT #11

(1) Teacher: *What about "bald person"? What did you decide about that one?*

(2) Student 1: *That's a status.*

(3) Teacher: *How did you decide that?*

(4) Student 1: *Bald people are expected to be funny—to do funny things, to be in good humor.*

(5) Teacher: *Is that true for all bald people?*

(6) Student 1: *No. But we have a neighbor who's bald and that's the way he is.*

(7) Teacher: *You're basing your decision only on one bald person. Bald people are no more funny or less funny than any other group. Your expectation is based on only one bald person; most people don't usually think of bald people as funny.*

(8) *(Several students call out, "I do," and when called upon give examples of bald people they know who are usually in good humor, funny, etc.)*

Note how the teacher in this discussion actually was confused himself about the criteria—at points (5) and (7), for instance, inadvertently suggesting that *all* the members of a status group

must invariably act in an expected way, a misinterpretation of the criterion of *common expectations*. Furthermore, even if the criterion had been correct, should the teacher have been the one to apply it?

A more effective procedure for the same subject is followed in this class discussion:

DISCUSSION SEGMENT #12

(1) Teacher:	What about "bald person"? What's the first step in finding out if it refers to a *status*?
(2) Student 1:	You ask yourself if we have expectations for particular ways bald people act.
(3) Teacher:	Right. Well, what about it? Do we have expectations for particular behavior by bald people?
(4) Student 2:	Bald people are expected to be pleasant, to be friendly and to be in good humor.
(5) Teacher:	Are those very common expectations?
(6) Student 2:	I don't know. But we have a neighbor who's bald and that's the way he is.
(7) Teacher:	Have you come to expect him to act that way?
(8) Student 2:	Yes. If he didn't, we'd think something was wrong.
(9) Teacher:	I see what you mean. Now I have to make the test we are using a little clearer. So far, what questions have you learned to use in finding out if a name really refers to a status?
(10) Student 3:	First, you ask whether we have expectations for how they act.
(11) Teacher:	Okay. Then what.
(12) Student 4:	Then you ask if the expectation is for those people or for some bigger group.
(13) Teacher:	Good. Now we have to add one more question: Is the expectation a common one? That is, is it an expectation held by a larger number of people? How about the expectation you (Student 4) have for bald people? Do you feel that is an expectation that a lot of other people share with you?
(14) Student 4:	Probably not. I think it's something I have because of this one person I know.
(15) Teacher:	That could very well be. Let's check it out by asking others in the class whether they have the same expectation and if so, what it is based on.

If there is substantial disagreement, some students might prefer to suspend judgment until they could check the idea out by asking other people and by watching TV and newspaper advertisements for further evidence—by no means an undesirable outcome. If students learn in this way that the application of appropriate criteria is easy for some terms but difficult for others, their insight into the complexities of classification will be increased considerably.

Chapter 5
USING CLUSTERS OF CRITERIA

Students have classified a phenomenon by applying a single criteria (a snare is a hunting tool if it is useful in catching or killing animals), or interrelated criteria ("mother" is a status if the society as a whole expects particular behaviors from mothers as mothers and if, conversely, mothers expect particular behaviors from others). In Lesson 1 of "Origins of Humanness, Might Any of These Be Early Relatives," p. 19, they are given a somewhat different classifying task. They are to sort a number of Fossil Evidence Cards into two categories—"ape-like" and "related to our human ancestry," on the basis of several independent criteria—a cluster of criteria—for each group (sharpness and size of canine teeth, size of the jaw and the other teeth, shape of the jaw, size of the braincase, and size and position of a characteristic ridge at the rear of the skull), all of which they have learned from reading "How to Know an Ancestor When You Find One."

In applying these criteria to the Fossil Evidence Cards, students discover that not every skull pictured can be categorized neatly into one or the other group, since several of them combine criteria that are both "ape-like" and "related to our human ancestry." And sometimes not all the criteria can be applied, since part of the evidence is missing from the skull. How can you classify a piece of fossil evidence in such cases—where the evidence is incomplete or inconsistent? Students may be reminded that anthropologists constantly cope with this very real problem.

Note how this is handled in the following discussion.

DISCUSSION SEGMENT # 13

(The students have looked at only the front side—fossil pictures—of Fossil Evidence Cards #1 through #5. They have read none of the information given on the reverse side. All members of the class have classified the individual represented on Fossil Card #2 as "ape-like." Several students have indicated they do not know what to do about the others.)

(1) Teacher:	Before we start to look at the others, perhaps we should ask how you decided that the fossil individual represented on Card #2 is "ape-like."
(2) Student 1:	Well, it looks like an ape.
(3) Teacher:	In what way?
(4) Student 1:	It looks—you know—apey! (Laughter)
(5) Teacher:	You're right. But just what makes a skull look "apey"? Last week you read the article "How to Know an Ancestor When You Find One." What did you learn about things to look for to tell whether or not a fossil individual might be an ancestor? Look at your notes—or the article itself. Yes?
(6) Student 2:	You look at the teeth.
(7) Teacher:	And what do you look for? Fillings? (Laughter)
(8) Student 2:	You look at these teeth here (points to her own canines) and see if they are large and pointy.
(9) Teacher:	What else about the teeth?
(10) Student 3:	How big they are.

(11) Teacher: Okay. We have two things to look for (jots them on the board; continues to list characteristics as students name them). Anything more? (Long silence) How about the jaw?

(12) Student 4: Oh, it said the ape jaw is kind of square-shaped. Human jaws are more curved—like part of a circle. And the jaw isn't as heavy.

(13) Teacher: Okay. Anything else? (Silence) We've looked at the teeth and jaw—what's left?

(14) Student 1: Well, there's the space where the brain was. How big that is.

(15) Teacher: Okay. We're talking about the skull now, as distinct from the jaws and teeth. Anything else about the skull?

(16) Student 5: The bump on the back of the head. You look at where it is.

(17) Student 6: You see if the bump there is high up or low down. Like on Card #2 it's 'way up high and very big.

(18) Teacher: Okay. What does that tell you about #2?

(19) Student 6: That's where the neck muscles were attached. It means he had big neck muscles—because the ridge is big.

(20) Teacher: What else does it tell you?

(21) Student 7: That's where the neck and the head fit together—where the spine connected. His head kind of hung out in front and he didn't walk standing up.

(22) Teacher: Okay. We've got five things to look for in an "apey" skull: canine teeth—the long pointy ones, the size of the teeth and jaws, the shape of the jaw, the size of the brain, where the ridge at the back is—high or low. How does Fossil Card #2 stack up on these points?

(23) Student 8: He's got canines—big ones! In fact, all his teeth are big. A squared jaw. A large jaw. A small brain. And the ridge is 'way up high.

(24) Teacher: So you had good reasons for classifying #2 as ape-like, didn't you? Now look at the back of the card. What is it?

(25) Several students: A modern gorilla.

(26) Teacher: I'd say you were looking at the right evidence when you place him in the *ape-like* category. Now who will do the same for the fossil individual on Fossil Card #1?

(27) (Several students respond by going down the list and describing the corresponding features on Fossil Card #1. They conclude that the fossil individual represented there is "related to our human ancestry.")

(28) Teacher: Let's look now at the three pictures at the top of Fossil Card #3. You probably haven't much doubt about the first two individuals. But what about the skull at the far right—the one labeled "reconstruction"?

(29) Student 10: Well, it has long canine teeth. But the teeth in general are small. It's hard to tell what *shape* the jaw is, but it's small.

(30) Student 8: The brain takes up a large space—and the ridge at the back is lower than the gorilla's even though it's higher than the one on Fossil Card #1.

(31) Teacher: What did you leave out?

(32) Student 10: The jaw shape. It's curved.

(33) Teacher: Good. Now, how should we classify this creature?

(34) Student 6: It's hard to say. It's got some ape things and some human things.

(35) Teacher: Now, how would we decide in a case like that?

(36) Student 9: I think we'd call it ape if it had more ape things, and human if it had more human things.

(37) Student 3: But here it's about the same. He has about the same number of ape and human things.

(38) Teacher: That makes it especially hard, doesn't it. If you classified this one as related to human ancestry, which would you be more sure of—this one or the individual on Card #1?

(39) Student 3: The one on Card #1.
(40) Teacher: And if you classified it as ape, which would you be more sure of—this one or the individual on Card #2?
(41) Several students: The one on Card #2.
(42) Teacher: Then, whichever way you classify it, you don't feel very sure about this one. But here's an idea. One thing to do is to make a third category which can be called "Not sure." This fossil individual would be in that category. (Students nod approval)

Note that from the beginning of this discussion up to point (35) no attempt was made to have students "discover" the proper criteria for classification. These criteria had been given them in their reading and should already be familiar ground. You can identify three "prompter cues" given by the teacher to lead the students onto that familiar ground. Note that *after* (35) students do participate in the discovery of what can be done about inadequate or apparently contradictory data. Would it be wiser for the teacher to let students work out their own solution to the problem encountered instead of offering his own solution for classifying these dubious cases?

Categories that are identified by clusters of independent criteria are obviously more complex than those determined by a single criterion—the category of *skulls related to our human ancestry* as compared with the category of *hunting tools* or *statuses*. Students may experience considerable frustration in classifying with clusters of criteria until they learn to use the "Not sure" category as scholars often do.

Categories differ in yet another way: the quantity of phenomena they include. Some, like *hunting, food, status,* include a far smaller number of items than *social* or *environment*. These last two, in addition to having clusters of criteria, are exceptionally inclusive: actually very little about humans is not in some way social, and few—if any—phenomena that are not part of someone's environment.

Three of the most inclusive ideas in PATTERNS IN HUMAN HISTORY are *adaptation, human* (i.e., that which is *human* about humans), and *culture*. All students need repeated encounters or experiences with each of the three. Students who store their knowledge in unorganized fashion are especially in need of many activities centering on adaptation, for example, before they can comprehend the complete range of phenomena to which it refers. These activities occur in various parts of PATTERNS, particularly in "Studying Societies" and "Origins of Humanness."

The following discussion segment, based on "Studying Societies, Life in a Small Society: Analysis," illustrates some of the procedures that might lead students toward an understanding of adaptation.

DISCUSSION SEGMENT #14

(1) Teacher: Well, we have quite a list of things that contribute to an Mbuti's sense of security. What would happen if those things were not present among the Mbuti?
(2) Student 1: They would feel less secure.
(3) Teacher: Is that true for all these things we've mentioned? Let's take *rules*, for example. Would Mbuti people feel less secure without rules?
(4) Student 2: I think they would. They wouldn't know how they were expected to act.
(5) Student 3: They would wonder if they were doing the right thing and if other people were going to get mad, or yell at them, or ridicule them.
(6) Teacher: I see. Would you say rules are required to help the Mbuti to live in their surroundings?
(7) Student 4: Sure—that way all the work gets done. Men are expected to hunt in a certain way and they do. If everyone hunted like Cephu did in the story they would all have less food.
(8) Teacher: What are the surroundings in the case of the Mbuti?
(9) Student 4: The forest.

(10) Teacher: All right. Now if these rules help people to know how to act and what others expect, does that help each Mbuti with anything else that surrounds him?

(11) Student 5: Well, it helps him get along with other people.

(12) Teacher: Okay. Are they part of his surroundings?

(13) Student 5: Sure. The *people* part.

(14) Teacher: Now earlier in this lesson I mentioned the word "adaptation" and said it is something we would come back to again and again and that it refers to what is required if the Bushmen are to have a sense of security in their surroundings. We've agreed that *rules* are one thing that does that for them. As we go along, we will find out other kinds of things that help them. Right; now I want you to add to the idea of adaptation the idea that surroundings means things like the weather, mountains, and other nonhuman things, as well as the forest—and that surroundings has a people part, too.

Note how the students have been asked to apply a criterion for the idea *adaptation*—whether something was required to help people live in their surroundings—to the phenomenon *rules*, and how the entire discussion leads toward a better understanding of *adaptation*, even though the term has not yet been precisely defined. Special progress has been made by expanding the students' idea of *surroundings* (another inclusive category) to include people and inanimate things like weather and mountains, in addition to the forest.

Chapter 6
SPECULATION

How can you help your students—especially those who have difficulty with abstract ideas—make warranted speculations about human phenomena?

The term *speculation* has a fairly specific meaning in the context of PATTERNS IN HUMAN HISTORY. It is a mental task in which one uses known characteristics of a group, event, or other phenomenon to produce conclusions about an unknown characteristic of the same item. The conclusion is tentative, subject to possible revision in the light of more evidence.

Students are asked to speculate quite frequently during each of the major Parts of PATTERNS IN HUMAN HISTORY. Speculation has, in fact, been involved to a considerable extent during the lessons and discussions explored in earlier chapters, though we have not stopped to identify the process as such. To determine, for example, whether or not particular elements of Bushman life contribute to a reliable food supply or a sense of security, students had to speculate about the influence of known phenomena upon each other and about the nature of a Bushman's internal feelings.

The recurrent use of speculation is particularly evident in "Origins of Humanness." Students are asked, for instance, to make reasonable statements about the lives of prehistoric peoples from an examination of their tools, reproductions of their art, the information on archeological site maps, and various combinations of these sources of known evidence. Toward the end of "Origins," students must speculate on the function of such psychological phenomena as belief in magic and witchcraft, to determine whether or not these phenomena are adaptive mechanisms.

Any speculation must follow certain steps from what is known to conclusions about "unknowns." As a means of identifying these steps, read the following portion of a discussion, based on "Origins of Humanness, Fossil and Cultural Evidence," Lesson 1. But first turn back to p. 24, and reread Discussion Segment #13, which immediately precedes the class discussion given here. As you read the two segments, try to locate any places in the entire discussion where a student produces a reasonable statement (makes a speculation) about some unknown characteristic.

DISCUSSION SEGMENT #15

(The students have examined only the front of Fossil Cards 1 through 5. They have just gone through a discussion comparable to Discussion Segment #13, in which they decided which skulls were "ape-like" and which "probably related to our human ancestry.")

(1) Teacher: Let's turn our attention now to something a little different. Which of these eight fossil individuals probably walked erect?

(2) Student 1: The ones we said were human-like.

(3) Teacher: What makes you think that's true?

(4) Student 1: Well, if they are human-like, they must walk erect because we do!

(5) Teacher: I see what you mean. But be careful. Just because we classify a particular fossil individual as more human-like than ape-like doesn't automatically mean that it has other things we associate with being human. Is there evidence right in the cards—just in the bones shown—that suggests some walked erect but others didn't?

(6) (Silence)
(7) Teacher: What does walking erect mean?
(8) Student 2: Standing up straight—
(9) Teacher: Instead of . . .?
(10) Student 3: Walking on all fours.
(11) Teacher: Can you picture yourself on all fours? Does that bring anything to mind that you have already learned about erect posture?
(12) Student 4: Well, a few days ago we said that if we walked on all fours our heads would be looking down at the ground and we would have to keep lifting them up to see in front of us.
(13) Teacher: Does that remind you of anything that . . .?
(14) Student 1: Oh, wait! It's where the head and the spine connect. Here—the one on Card #1 walked erect!
(15) Teacher: What tells you that?
(16) Student 1: Well, the ridge at the back of the skull, where the muscles were attached, is low on the skull—on Card #2 it's 'way up high.
(17) Teacher: Okay. What about the rest of the fossil individuals on Cards #3, 4, and 5? Did they walk erect?

If the teacher had merely accepted the statement by Student 1, at point (2), he would have missed the opportunity to help the student discover the flaw in his reasoning, which the teacher uncovers by the next question, at points (3) and (4). By pointing out that the student's reason for his speculation was unsound, the teacher helped the whole class to develop a sound procedure for reasonable speculation. Note that the same student, at points (14) and (16), bases his speculation on several valid principles or relationships. Note too that in this example the students use visual evidence from the cards—the *knowns* are observable bits of data.

Some characteristics of an effective speculation process illustrated by this discussion are these:

1. Speculation proceeds from what is known to what is unknown, the speculator generally having a question in mind about the unknown. (Which of these fossil individuals probably walked erect?)
2. At least some of the knowns have a basis in observable data (skull and jaw characteristics shown on the Fossil Evidence Cards.)
3. The speculator uses a principle or relationship (or a series of these) to link known to unknown and generate a speculative statement. (Here, the relationship between the position of a ridge on the skull and the activity of walking erect.)

In the following Discussion Segment (based on Lesson 2, "Fossil and Cultural Evidence") these three characteristics can be identified.

DISCUSSION SEGMENT #16

(The students have already examined the pebble tool and have just read from the back of Culture Card #1 that the stone tools on the Zinjanthropus Living Floor [illustrated on the front] are representative of findings from several areas of the world.)

(1) Teacher: Now turn the card over and look again at the Living Floor evidence. Is there anything there that might help us in resolving the difference of opinion we had earlier in the period about whether the original piece of stone that looked like this (holds up cast of pebble tool) was shaped this way by man or by nature?
(2) Student 1: Well, it says under the site map "stone tools"—and on the back it says that they were made by just bashing some parts off.
(3) Teacher: Okay. It does say those things. But let's not take their word for it completely. What did we say earlier about finding a stone like this?
(4) Student 2: We said you might be able to find a stone shaped that way by nature. That it's possible.

(5) Teacher: Okay. What else was said?

(6) Student 3: Someone said you couldn't find many of them—and most of us agreed to that. You know, like even in the mountains you couldn't find many stones shaped that way naturally.

Chapter 7

ASKING QUESTIONS AND GROUPING IDEAS

Opportunities for student experiences and assistance in speculation occur early and often as might be expected since "Origins of Humanness" deals with a period of human existence in which much must be reconstructed from relatively meager data inadvertently left by individuals inhabiting the earth tens and hundreds of thousands of years ago. These reconstructions could have been presented directly to students in the form of lively and entertaining readings, recordings, and teacher lectures. Instead, in marked and dramatic contrast, PATTERNS has the students engage repeatedly in the process of generating warranted inferences from a variety of archeological evidence. This apparent abandonment of efficiency is obviously no accident. Nor is it merely a pedagogical stratagem to heighten interest and increase student participation as such. It is, in fact, the salient feature of ACSP's approach to attaining the most significant objective of PATTERNS: to increase student ability to process social data and thereby to interpret and give meaning to such data—an ability that will be applicable to all other learning.

As students work through the lessons in "Origins of Humanness" where speculation is important, your main task is to help them become better inference makers. The student who can draw reasonable inferences from observable data must begin with questions. Secondly, he must know how to search the data for potentially relevant patterns. Finally, he must be able to link questions to patterns among the data through the use of linking principles.

The importance of questions about the unknown cannot be over-stressed. They tell the student what to look for in the data at hand. In other words, they direct the search for relevant patterns in what can be observed directly. Suppose that a student is examining an object—a stone artifact, a map, a figurine. He asks himself this question, "How did these people (the people who lived at the site or who made the stone object) obtain their food?" This, in turn, leads to another question—a search question. If put into words this second question might ask, "What, if anything, is there about this item (stone, map, figurine) that is in any way connected with obtaining food?" Without a speculation question, the student cannot, either consciously or unconsciously, generate a question that can direct the search for relevant data. And without some inner "set" of what to look for, the whole path of inquiry becomes a confused jumble, a hit-or-miss activity. The student with well-organized and highly developed learning skills can work himself out of the confusion. Others cannot and give up in desperation or become overly dependent on direction and answers from the teacher.

Emphasis on the focusing question is very evident in "Fossil and Cultural Evidence" Lesson 2. Before being invited to speculate either about the cast of a pebble tool or the people who may have fashioned and used it, students are asked to generate as many questions as they can that in some sense have a bearing on the object. Subsequent placing of these questions into categories establishes that there are levels of questions that differ according to how certain one can be of the answers, and according to whether the questions concern the object itself or the relationship it may have had to other things (like the manner in which it was produced and the use to which it was put).

To teachers who are not aware of the conceptualizing functions of this pebble tool lesson, the recommended procedures may appear cumbersome and inefficient. At the slightest sign of difficulty the temptation is to abandon these procedures and "get to the point." But hold on.

DISCUSSION SEGMENT #17

(1) Teacher:	What is one question that can be asked about this object?
(2) Student:	Well, now, is it brown?
(3) Teacher:	Well, now, *is* it brown?
(4) Student:	Yes, it's brown.
(5) Teacher:	What other question does "it's brown" answer?
(6)	(Silence)
(7) Teacher:	Let's look at it another way. If it weren't obvious that this object is brown, what question would you ask?
(8)	(Silence)
(9) Teacher:	If you couldn't tell what this object looked like, what question might you ask? Would you ask, "Is it brown?"
(10) Student:	I might.
(11) Teacher:	What else might you ask?
(12) Student:	Is it green?
(13) Teacher:	Wouldn't you be more likely to ask, "What color is it?" You can see that "What color is it?" is a more efficient question than asking about particular colors, because you might have to use a dozen questions before you got the right color.

In this segment of classroom discussion the difficulty encountered by the student is due to his simply not understanding the questions. The conceptual task involved is really not complex: the student must mentally distinguish between particular colors on the one hand and the abstracted quality *color* on the other. He must mentally separate specific colors from the category color—something he has been doing in everyday situations for many years. The problem is that he doesn't understand just what these particular questions mean. The teacher meanwhile has concluded that the whole procedure that has been recommended for the lesson is ineffective and confusing, and that the same objectives can be served just as well by merely telling the student directly what he first asked him to figure our indirectly. And the teacher proceeds to do so, at point (13).

Once the situation has become as confusing as it is in the discussion segment quoted, probably little could be gained by continuing what has become a guessing game between teacher and student. Given the teacher's interpretation of why things are going wrong, it is probably better that he proceed *to tell all* than compound the confusion by asking more questions. Even if things were to be cleared up eventually through question-answer procedures, the student's psychic energy would be spent figuring out what the teacher means rather than working constructively on a conceptual problem about the object in front of him.

The intended purpose of the lesson, however, is to have students generate and categorize questions related to the evidence provided by a material artifact. If you understand this objective, you will be in a better position to overcome difficulties that arise, without sacrificing the main contribution the lesson can make.

Understanding the objective may not be enough. You need also a repertoire of things to try when the lesson somehow becomes unpredictably confused. When the student task is one of classification or when the problem involves clarity among the boundaries of conceptual categories, leading your students onto familiar ground has potential value for the student and can purchase thinking time for you, until you can figure out the next best step. In this lesson familiar ground can be either the questions students generate about the pebble tool or its own physical characteristics. Both are familiar in the sense that in talking about *his* questions (whether appropriate or not) or in describing the physical properties of the object before him, the student can deal with what he already knows and knows how to do.

Inviting students to list a number of questions or properties, in contrast to one example only, has further advantages. The potential difficulty of using only one example to represent a conceptual category is that the student may center on an incidental, unrelated characteristic of

that example as the defining characteristic for the category. The concept *adaptation*, for example, is so enormous in its applicability and inclusiveness that the likelihood of a student's identifying insufficient criteria from a single example is extremely high.

Avoid, for example, such inadequate class discussion as this:

DISCUSSION SEGMENT #18

(The class has been discussing Bushman methods of hunting game.)

(1) Teacher: *Well, then, would you say that these various hunting methods have been useful to the Bushmen?*

(Nods from several class members. A few say, "Yes," "Sure," or "Of course.")

(2) Student 1: *They've helped them to catch game—to get enough food.*

(3) Teacher: *Okay! Now things like this, which are useful and helpful in getting along in one's surroundings are called* adaptations. *Can you suggest another adaptation of the Bushmen?*

(4) Student 2: *They use snares.*

Note here several characteristics that a student might select as boundary criteria for the category adaptation, which would be insufficient or misleading. Suppose, for instance, that he centered on the words useful or helpful and concluded that anything useful or helpful (even an environmental element) is an adaptation. Or perhaps the word adaptation (because of previous associations) connotes for him forced changes, leading to the conclusion that man passively adapts to his environment, inadvertently excluding any concept of man as an environment *changer*. Or suppose the student selects either "hunting" or "getting food" as the test for whether or not a phenomenon is an adaptation?

We now have two suggestions that might be helpful:

1. Make a list of students' questions that can be asked of an object (or properties of the object that students have identified).
2. Do not attempt concept clarification on the basis of only one example, or—to state it more positively—be sure the class has several examples before proceeding to the next step.

To these one further suggestion might be added:

3. Be aware that negative or inappropriate examples suggested by students may prove useful in subsequent conceptual clarification of categories.

Here is how Discussion Segment #17 (given earlier in this chapter) might sound, if you keep these procedures in your repertoire. You need also to remind yourself repeatedly that the essence of the pebble tool lesson is not only to teach information about particular tools and their uses, but to have the student discover questions that will eventually lead to sound speculation.

DISCUSSION SEGMENT #19

(1) Teacher: What is one question that can be asked about this object?

(2) Student 1: Is it brown?

(3) Teacher: Well, now *is* it brown?

(4) Student 1: Yes, it's brown.

(5) Teacher: What other question does "It's brown" answer?

(6) (Silence)

(7) Teacher: Let's go ahead. Some other people wanted to suggest other questions.

(8) Student 2: Who made it?

(9) Teacher: (Writes all questions on the board as the lesson proceeds) What do you mean by "Who made it?"

(10) Student 2: Well, you know, was it made by a prehistoric person? How long ago did that person live?

(11) Teacher: All right. Yes?

(12) Student 3: How do we know it was made? How do we know it just didn't come that way naturally?

(13) Teacher: We haven't discussed that yet, have we? That's really a question that should be asked about the object. Would you say it again?

(14) Student 3: Well, the question would be, "Did someone make this thing, or did it get the way it is naturally?"

(15) Teacher: Okay. Let's write that down as two questions: Did someone make this? Did it get this way naturally? (Adds these to the list on the board) Any more?

(16) Student 4: What was it used for?

(17) Teacher: All right. What might be some more specific questions about its use?

(18) Student 5: Was it used to crack nuts? Was it used to throw at animals?

(19) Teacher: Okay. Anything more?

(20) Student 6: If people made it, what else were they doing?

(21) Teacher: Like what?

(22) Student 6: Well, did they have fire? Did they live in villages? Did they hunt animals?

(23) Teacher: Okay. (Adds these to the list) If you couldn't see this object—if I had left it at home and you wanted to know about it, what might you ask?

(24) Student 3: What does it look like?

(25) Student 7: What shape does it have? Are there any markings on it?

(26) Teacher: What else?

(27) Student 8: How big is it? How heavy?

(28) Student 5: What's it made out of? Is it hard or soft?

(29) Teacher: Would you ask, "Is it brown?"

(30) Student 8: You might.

(31) Teacher: Or you might ask what? Remember you can't see it.

(32) Student 8: Well—Is it gray? Or—Is it red?

(33) Teacher: Okay. Are those two questions alike in any way?

(34) Student 1: Yes. They're both about color.

(35) Teacher: Could we put these three together to make a group of questions about color? What might the question be that covers all three?

(36) Student 3: What color is it?

(37) Teacher: Okay. What I want you to do now is get together quickly in your "buzz" groups and: First, add to the list of questions we already have. Second, make up *groups* of questions that go together, the way we just did with the color questions, and then name each group with an overall question. You have about ten minutes.

The teacher anticipates that at the end of ten minutes the students, as a total group, will have a larger number of questions than earlier and will have grouped at least some of them into a variety of categories. During subsequent discussions these various categories can be listed and students can be assisted to combine some of them to make even more inclusive categories. For example, the question categories on the left below can be combined to produce the inclusive category defined on the right.

What color is it? What shape is it? How hard is it? What is it made of? How much does it weigh?	What are its physical features?

An important step in combining categories is to find a suitable name for the most inclusive category—either a question name (e.g., "What are its physical features?") or a descriptive label (e.g., "The object itself" or "observable characteristics").

As you look back at the discussion segment just quoted, can you identify some of the strategy moves made by the teacher? When a difficulty arises in the absence of response to a seemingly simple question, at point (6), how does the teacher handle the situation without answering the question himself (as the teacher in an earlier discussion segment on the same

topic did)? At point (22), when a student mentions three questions that go beyond the task assigned (since they are not about the object itself but about the lives of the people who may have made it) should the teacher have rejected them instead of adding them to the list on the board? Should the distinction between these questions and those that are directly related have been made at once?

What has happened to the question "What color is it?" which the teacher anticipated Student 2 would mention at point (6)? And what has happened to the larger concept of inclusive questions that the distinction between "Is it brown?" and "What color is it?" was supposed to bring out? You may be sure that the teacher has not lost sight of these matters. Instead of taking the shortcut of presenting the students with his own explanation of the categories involved, he prefers to have these emerge later—perhaps when the students are putting together questions that are similar in some way. Whether the decision to do so was made prior to or during the lesson cannot be determined from the discussion itself. What *can* be inferred is that, after making an initial attempt, at point (5), the teacher abandoned this approach, since the silence at point (6) signaled the possible presence of confusion.

Note that between points (7) and (22) the teacher is constantly prompting students to mention questions and to specify the meaning of unclear or ambiguous ones. At point (12), when Student 3 expresses his annoyance with an assumption others seem to be making, namely, that the object is man-made, the teacher lists the student's questions on the board, among the others. Why doesn't he start discussion of this important issue instead of merely getting the student to phrase it in the form of questions and then asking the class for more? Student 3's concerns are, after all quite legitimate and reflect exactly the kind of question archeologists have asked about such rocks. Once again, the teacher is confident that these questions (about how the object came to have its present shape) will occur later during the class period.

Note the slight shift in direction made by the teacher at point (23). Is there any value in this refocusing of attention? Note too that throughout this discussion segment one of the teacher's main objectives is to elicit from the students several relevant questions from a wide *range* of question categories, so that these categories—and even more inclusive ones—may be identified by the students later in the lesson and the more specific questions classified within their appropriate categories.

When given the chance to discover for themselves the right questions to ask about a given phenomenon and then to classify the questions within larger categories before attempting to draw inferences from the phenomenon, students are practicing the skills necessary for speculation.

Chapter 8

TESTING SPECULATIONS

The steps taken in the process of speculation, as summarized at the end of Chapter 6, might be expressed as follows, each step leading into the next:

A. Observation and description of given data–
  B. Question about the "unknown" stimulated by the data–
    C. Reexamination of "known" data and examination of new, related data in the light of the question–
      D. Finding a principle linking the "known" to "unknown"–
        E. Application of that principle in reexamination of the data–
          F. Resultant speculation about the "unknown."

A final checking of the "unknown" in the light of all the "knowns" is then called for to confirm the soundness (reasonableness) of the speculation.

Here are the steps as they might be taken in Lesson 2 of "Origins of Humanness, Fossil and Cultural Evidence,"

A. Students observe and describe the cast of the "pebble tool" from ancient times.

B. The question naturally arises: Is this man-made, or did it acquire its shape naturally?

C. Students reexamine the pebble tool and examine related data on Culture Card #1 for evidence of whether the object is man-made.

D. The linking principle is established–the unlikelihood that objects of this shape would occur naturally in large numbers.

E. In the light of this principle, they examine again all known data.

F. Students reject the possibility that the pebble tool might have got its shape naturally–on the basis of observable characteristics of the cast itself and data from Culture Card #1; they conclude that its being man-made is a reasonable conclusion–a warrantable hypothesis.

In practice this precise order might not always be followed. The impetus for speculation might come first, for instance, from the question itself, before any data had been observed; or it might be stimulated first of all by the hypothesis, which would then be checked. No matter how the whole process is started, however, an essential step is a *question* about the unknown, at whatever point that question is generated. (Thus the earlier emphasis on giving students an opportunity to ask questions.)

Have all the steps listed been followed in the discussion segment below? What are the various stages?

DISCUSSION SEGMENT #20

(1) Teacher:	Let's turn to a question that was raised yesterday after we had looked at this (holding up the cast of the pebble tool)–that we talked about at the end of the period. What was the question?
(2) Student 1:	Were pebble tools made by humans?
(3) Teacher:	Okay. How else might the question be put?
(4) Student 2:	How did the pebble tools get shaped the way they are?
(5) Teacher:	Right. And what are the possibilities?

(6) Student 3: Well, either they were made by men, or they got shaped that way by nature.

(7) Teacher: Okay. Now we are going to take a good look at the evidence again. What do we know *for sure*? Start with this "pebble tool" cast, which we began to describe yesterday. Does anything about it seem particularly related to the question?

(8) Student 4: Its peculiar shape is really the reason we asked the question.

(9) Teacher: Just how would you describe its shape?

(10) Student 4: It's hard to describe.

(11) Teacher: Yes, it is. An archeologist might best describe its shape by drawing several pictures of it from different angles. What can you say about the shape in words?

(12) Student 2: It's not shaped the same on all sides. It's rounded and smooth over here, and it has sharp corners and ridges over there.

(13) Student 5: It has a rounded edge—really no edge at all for about half of it. But the other half has an edge—kind of a jagged edge that comes to a point here.

(As the discussion proceeds, students—prompted by the teacher's comments and questions—give further descriptive statements: (a) the line between the smooth and ridged areas is irregular; (b) the ridged area has eight distinct planes separated by relatively large ridges; (c) neither the jagged edge nor the point is very sharp, compared with modern tools. The teacher then asks the students to look at Culture Card #1 and indicate anything additional that they know *for sure* from the card's evidence, writing these items on the board, as they are mentioned.)

(14) Student 6: There are a lot of animals' bones at the place shown.

(15) Teacher: Okay. Anything else?

(16) Student 4: A human leg bone is there.

(17) Student 7: And a skull close by—Zinjanthropus, however you pronounce that.

(18) Teacher: That's right. And what kind of creature was Zinjanthropus?

(19) Student 7: One of those early men?

(20) Teacher: Right. This is one of the type called Australopithecine. What more do you know from the Culture Card?

(21) Student 2: Stone tools were found there.

(22) Teacher: What kind?

(23) Student 2: Like the ones in the pictures.

(24) Teacher: Okay. How many? Roughly?

(25) (Several students count; the counts vary but are close to each other.)

(26) Teacher: Well, then you'd say between forty and fifty. Anything more about the bones? (Silence) How about where the bones are? Are they all in one place?

(27) Student 8: No. But the right-hand side has the most—all bunched up together.

(28) Teacher: Do you notice anything about where the stones are in relation to the bones?

(29) Student 7: I see something. Where there are a lot of bones there are a lot of stones.

(30) Teacher: And . . . ?

(31) Student 7: Where there are only a few bones, there aren't many stones.

(Next the teacher prompts the students to compare the stone tool pictures on Culture Card #1 with the tool cast. Students conclude that, though there are some differences, there seems to be great similarity in shape: rounded on one "side," a dull edge and point on the other, a series of irregular planes over about half of the surface separated from each other by ridges. After all these comments have been listed on the board, the teacher returns to the original question about how the pebble tool got its shape. Did it get that way *naturally* or did someone make it that way?)

(32) Teacher: Could this piece of stone possibly have been made this way naturally—smooth on one side, with an edge and point on the other, and all those ridges?

(33) Student 7: Sure. I've seen stones from the river that were just as smooth as that is on one side.

(34) Student 4: But what about the side with the edge and point?

(35) Student 7: Well, after the river had washed it smooth, the pebble could have gone over a waterfall and hit a big rock below that smashed off part of it.

(36) Teacher: Could it have been cut off like this by just one fall?

(37) Student 7: Probably not. But maybe it went over a lot of waterfalls and got a chip broken off each time.

(38) Student 8: But it wouldn't always fall on the same side when it hit a rock, would it?

(39) Student 7: I don't know. But it just might—because of the shape it was in the first place.

(40) Teacher: That's right. It *just might* have fallen that way every time and each time had another chip broken off. It would have had to fall at least eight times, wouldn't it. Do you think that's very likely?

(41) Student 7: No, I really don't. I was just saying what *could* have happened.

(42) Teacher: Well, now let's come back to what we saw on the Zinjanthropus Living Floor, on Culture Card #1. How many stones shaped pretty much like this were found there?

(43) Student 6: About fifty. And, besides, the Card says that others like them have been found in a lot more places.

(44) Teacher: Do you think this has anything to do with our question?

(45) Student 6: Sure. There might be *one* stone that went over all those waterfalls, but there couldn't have been *fifty*—and all those others, too.

(46) Teacher: So . . . ?

(47) Several students: This must have been man-made.

(48) Teacher: That seems to be a sensible conclusion anyway, doesn't it, when we consider any other way the shape could have been caused. So—from the evidence we have looked at, both the pebble itself and the evidence on the Culture Card—we seem to have reached a *reasonable hypothesis*: that this "pebble tool" was man-made.

This exploration of a reasonable explanation (a speculation about what is unknown) must be carried out fully, without any shortcuts. Furthermore—to repeat what has been emphasized before—it should come through an interchange between teacher and student, not through teacher presentation. Again, the value of the lesson lies in the students' learning the thought processes necessary for making a warrantable speculation, in addition to learning particular information about stone tools. They are to learn, for instance, that the validity of any speculation about unknown phenomena depends on how reasonably it accounts for all that is known—in this case, all that can be known by observing pebble tools and noting the frequency with which they have occurred at archeological sites.

Throughout this lesson it may be necessary to remind students that the terms "pebble tool" and "stone tools" as used on Culture Card #1 are merely identifying labels. Students may try a shortcut of their own by saying, "Of course, these things are man-made, because that's what tools are." Remind them that their job is not to draw inferences from the terminology but to base their speculation on really observable data.

Once they have really considered the observable data and come to the conclusion—on the basis of such data—that pebble tools were made through design (in contrast to getting that way naturally), they may wish to broaden the discussion to include speculation about the uses for which the tool makers designed these particular tools and whether anything can be concluded from observable data about their way of life. Be sure that the students recognize what meager evidence is offered by the pebble tool itself and the Culture Card for reasonable hypotheses about such areas of Australopithecine life—that the best answer for many questions of this kind is "not sure" or "insufficient data."

Chapter 9

LEVELS OF INFERENCE

Speculation questions differ in the number of inferences that must be made to produce a reasonable answer—and, accordingly, in the number of principles needed to link the whole chain from "known" to "unknown." Some questions, like that of how the pebble tool got its shape, require a small number of inferences and linking principles. Others, like questions about the social organization of a prehistoric group that made pebble tools, require many more.

The following discussion segment occurs during Lesson One in "Origins of Humanness, Cultural Developments from Australopithecus to Homo Sapiens." Students have just examined the handaxe cast along with the pebble tool (which they have seen and described in an earlier lesson). The teacher has asked the class to look for ways in which the two objects are different from each other. Because this task does not require students to make an inference, remaining at the level of contrasting observable characteristics, it is a potentially effective way to begin a series of steps leading to a reasonable speculation. During the discussion, differences mentioned by the students are listed on the board in the form of a chart:

Categories of Characteristics	Color	Size	Shape	etc.
Object A (pebble tool)	brown			
Object B (handaxe)	gray			

DISCUSSION SEGMENT #21

(1) Teacher: You've examined both of these objects now. In what ways are they different?
(2) Student 1: First of all, they are different colors. One is brown and the other is kind of gray.
(3) Student 2: And the pebble tool is smaller than the other one.
(4) Teacher: What do you mean by "smaller"?
(5) Student 2: There's less stone.
(6) Teacher: Okay. What are you comparing then?
(7) Student 2: How much stone it has. Its size.
(8) Teacher: What else is different?
(9) Student 3: Shape. One's like that (draws in air with finger) and one's like that (draws again).
(10) Teacher: Okay. I'll draw two outlines on the chart. Any other differences?

(Students continue to identify differences: in contrast to the pebble tool, the gray tool's edge goes all around the object; the places where it looks as if pieces have been broken off in some fashion tend to be smaller, there are many more of them, and the smallest ones are next to each other along one portion of the tool's edge; the "front" and "back" of the gray object look highly similar to each other; the edge is less irregular—though it is bumpy, it has no sharp angles like those on the pebble tool; for most of its length, the gray tool is thinner than the other; it is a longer tool.)

(11) Teacher: Okay, if no one has any more differences to mention let's go on to another question. How did this gray object get its shape—or, to put it another way, was it made by a human?

(12) Student 4: Well, if the pebble tool was made by a human, then the gray one certainly was also.

(13) Teacher: Why do you say that?

(14) Student 4: I don't think that something shaped just like that could come about accidentally, just by nature.

(15) Student 1: Well, were any other things like this found?

(16) Teacher: Yes, quite a few. In the thousands. Not in this shape exactly, of course, but showing the same general characteristics. Why did you ask?

(17) Student 1: Well, that makes it even more likely that these things were man-made. How could all of them be made by chance?

(18) Teacher: All right. Unless someone seriously thinks otherwise, let's assume it was shaped by man. Now let's go a bit further. How do you think the technique for making this object was different from the technique for making the pebble tool—or were they the same?

(19) Student 4: The gray tool needed a better technique.

(20) Teacher: Better in what ways?

(21) Student 4: It couldn't be as sloppy. The pieces taken off were smaller.

(22) Teacher: I see what you mean. Is there anything else about the gray one that suggests that the method used to make it was different from that used on the pebble tool?

(23) Student 5. It has marks all over it—places where it looks like chips were taken off. The pebble tool only has that kind of thing next to the edge. I'd say it took a longer time to make the gray one.

(Several other students make similar comments, all to the effect that the gray object was made with a more refined technique.)

(24) Teacher: Does all this tell you anything about what kind of people made these tools, as compared with the ones who made the pebble tools?

(25) Student 6. That's not so easy to figure out. But I'd say they would have had to *think harder* about what they were doing.

(26) Teacher: That's an interesting comment. Just what suggested it to you?

(27) Student 6: Well, it's like the gray one's a more complicated thing to make. You'd have to learn how to do all that chipping, to make it come out right. You know, maybe you could *start* by bashing off the big chips—the way the people who made the pebble tools did. But then, when you came to taking off the little chips around the edges, you'd have to go more carefully. You couldn't be as offhand about it as you could with a pebble tool. You'd have to take more time.

(28) Teacher: And does that suggest to you anything about how their society may have been set up?

(29) Student 3: Well, they probably had special people to make these tools.

(30) Teacher: Would you say, then, that tool-maker was one of their specialists? (Several students nod) That seems likely, doesn't it. And if there were tool makers and the tool makers died, then what? Would the skill for making these tools disappear until somebody else worked it all out again?

(31) Student 2: No. Others would take their place.

(32) Teacher: How would they know what to do?

(33) Student 2: They probably learned it from the older tool makers while they were still alive.

(34) Teacher: And does that suggest a particular relationship between people—a particular status dyad?

(35) Student 3: Sure. Teacher-learner.

Let us examine the progression in this discussion segment. At what point does the class stop merely describing the tools and start making inferences about them? At what points do the inferences become progressively more remote from the objects themselves? Can you put into words the "linking principles" between what the students actually observed in the tools and the speculations made by Student 6 at points (25) and (27). (One way of expressing these linking principles would be: (a) if a complicated product is made over and over, the person making it must have learned how to do it; and (b) he would probably need more time than would be needed for a simpler product.)

Note, incidentally, the question by Student 1 at point (15), a question he probably would never have thought of before the lesson on the pebble tool. Note too that these students have been guided through what may at first seem like an unduly long process, without any shortcuts. Such long discussions, however, are needed to give students actual experience in developing sequences of inferences.

Here are a number of undesirable shortcuts that teachers have inadvertently taken during discussions progressing from one inference level to another. *By no means resort to these maneuvers.*

Shortcut to be avoided #1:

This shortcut omits student participation entirely, converting the experience into a teacher presentation. The teacher points out the physical features of the handaxe, for instance, contrasts it with the pebble tool, and draws all the inferences *for the class*. He takes one-fourth the time needed if students had participated and accomplishes nothing—except perhaps to further reinforce teacher-student interaction patterns that seriously interfere with students' learning to direct their own thinking.

Shortcut to be avoided #2:

Moving to inference questions without prior questions about description of observed qualities—and, in this case, differences between the two objects observed.

(1) Teacher: You've examined both objects now. Would you say they were made by the same method or by different methods?

OR You've examined both objects now. Would you say the gray one was formed by nature or by a human?

Note that the students here have had no opportunity to concentrate first on description of the two objects, identifying as many observable physical differences as possible and expressing these in terms that are free of inferences. The experience of concentrating on purely observable, physical qualities of the available evidence is essential; it provides an indispensable basis for later conceptualization.

Shortcut to be avoided #3:

Progressing to an inference level after too few differences have been identified, before an exhaustive comparison has been made:

(1) Teacher: You've examined both of these objects now. In what way are they different?

(2) Student 2: Well, the places on the gray one, where it looks like bits of stone were removed, are smaller and all over.

(3) Teacher: Good. What do those things suggest about the methods used to make these two objects?

Shortcut to be avoided #4:

Encouraging a student to disregard the distinction between observation and inference by reinforcing an inferential statement made by a student during the description phase (an especially

tempting shortcut at times because of the teacher's delight that the student has been "thinking ahead").

(3) Teacher: What other differences can you observe?
(4) Student 2: Well, the person who made the gray tool made smaller chips than the person who made the brown tool.
(5) Teacher: Okay, that's a good comment.

In contrast, the teacher might have handled the comment more profitably this way:

(5) Teacher: That's an interesting comment. But is it based entirely on what you have observed? Remember: we're trying to tell now only what we actually see.
(6) Student 2: Well, you're right. What I saw was only that the chipped parts look smaller. I added the part about the person who made it.
(7) Teacher: Okay. Then let's put that part off for a while. We'll come back to it in a few minutes, because the question whether people made this is very important. Right now, your second statement—what you really saw—is what we want to know.

Shortcut to be avoided #5:

Moving from observation to inference questions that are too far along in the chain, omitting necessary inferences in between.

(12) Teacher: Okay, if no one has any more differences to mention, let's go on to another question. Do the differences suggest anything about the thoughts of the people who used tools like the gray one?

Here students are deprived of *systematic* and *well-sequenced* opportunities to build up valid inference chains.

Shortcut to be avoided #6:

Failure to have students express carefully what they mean, to specify observations with precision:

(3) Student 2: The pebble tool is smaller than the other one.
(4) Teacher: Okay. Anything else?

By *smaller*, is the student referring to volume (amount of stone), length and/or width, thickness, or weight—or some combination of these?

Avoiding such shortcuts, however tempting they may seem, is essential to the most fundamental objectives of PATTERNS. If students are to begin thinking like anthropologists, or other social scientists, they need to learn how to reach a reasonable hypothesis on the basis of observable data. And the only way they can learn the procedure adequately is by going through the whole sequence of inferences required, not by being told what this sequence should be or by having essential parts of the inference chain omitted. Our hope would be, in fact, that class experiences with such inference chains would bring students to the point where they could ask themselves the necessary sequence of questions for reaching any hypothesis.

Note how the teacher in the following discussion segment (concerning "Origins of Humanness, Cultural Developments from Australopithecus to Homo Sapiens," Lesson #1) succeeds in getting the students to ask appropriate questions.

DISCUSSION SEGMENT #22

(1) Teacher: Let's look at the site map on page 63 of your Readings.

(As suggested in the Teaching Plan, students should get an idea of the size of the site by noting the scale and comparing the size with a familiar space—the school's football field, for instance, or a nearby park or playground.)

All I can tell you about this map is that the original site is believed to be several hundred thousand years old. Your job is to try to reconstruct the

lives of the people who were there. How would you start? Keep in mind what we did when we discussed the pebble tool and the handaxe.

(2) Student 1: We'd start with just describing what we're looking at.

(3) Teacher: Okay. How can you describe this site?

(4) Student 2: Well, it has four parts.

(5) Teacher: Yes. And these four parts (labeled Areas 1 to 4) are clearly outlined, aren't they. Archeologists have studied special problems in each area. What questions might they ask about the evidence they found?

(6) Student 3: One might be "How are the four parts different?"

(7) Teacher: Good question. Can someone suggest a way of contrasting the four areas? How might an archeologist go about *describing* how they are different?

(8) Student 4: He might count the number of things in each area.

(9) Teacher: Right! What things should be counted? (Starts a chart on the board, listing the four areas across the top, so that items mentioned by the students may be written down under each)

(10) Student 3: The bones.

(11) Teacher: Fine. What else?

(Students suggest counting all the items for each symbol appearing in the legend. The teacher has small groups of students perform the necessary counting operations. The chart on the board will be similar to those on p. 51 of the Teaching Plan for "Origins of Humanness.")

(12) Teacher: What kinds of questions have you been answering?

(13) Student 6: Questions that describe the evidence. Just telling what we see.

(14) Teacher: Okay. Is there anything we've left out?

(15) Student 1: Well, in size, Area 2 seems to be the smallest, and 3 next, then 4, then 1—the biggest.

(16) Teacher: I'll add that to the chart. Anything else?

(17) Student 5: Areas 1 and 3 are right next to each other and Area 2 is near them. But Area 4 is separate from the others.

(18) Teacher: All right. Anything else?

(19) Student 2: The things in Area 1 are kind of bunched up together. They're more spread out in the other areas.

(20) Teacher: (Allows time for any more observations the students may wish to make. None are forthcoming) What kind of question might be a good one to ask next? Remember our discussion of the pebble tool and the handaxe.

(21) Student 7: Well, with those, we asked next how they got made. But I don't see how that goes along with a map.

(22) Teacher: Would it help if you thought of *the arrangement of things* in each area as being the *shape*?

(23) Student 7: (After some thought) Yes. We could ask "Did the *arrangement* get that way naturally, or was it made by humans?" or "How did these things *get arranged* the way they are shown on the map?"

(During the discussion that follows students conclude that (a) the scatter of items in Areas 2, 3, and 4 seems to follow no pattern; (b) the concentration of large bones in Area 1 might be the result of a large animal dying or being killed there; (c) the concentration of tools near bones in Area 1 seems not to be a matter of chance; (d) there is high probability that humans used the tools in Area 1 to kill or cut apart the animals whose bones remain there.)

(24) Teacher: Now, those are interesting speculations. What questions do *they* answer?

(25) Student 2: "What were the people *doing* in Area 1?"

(26) Teacher: Yes. And that corresponds to questions about how humans *used* the pebble tool and the handaxe.

(27) Teacher: (Encourages students to speculate on how Areas 2, 3, and 4 were *used*.) Now that we have several possibilities for how these areas might have been used, what kind of question might come next?

(28) Student 6: Something about other activities. For instance, how many statuses did they have? If they were doing different things in different areas, they might have had different people to carry them out—like maybe the men hunted and butchered the animals and the women cooked them, made clothes and things like that.

(29) Teacher: Anything else along that line?

(30) Student 4: I think the people probably stayed here for a long time. They wouldn't just come and kill or butcher an animal and leave all those tools around.

(31) Student 3: Well, but if they had to move around a lot after game, then maybe they wouldn't want to carry all those tools with them, either. Maybe they made new tools more often than we think.

(32) Teacher: What kinds of questions are you trying to answer now?

(33) Student 4: Well, how long the people were around at one place. How often they made tools. Whether they moved a lot. What their statuses were.

A FINAL WORD

This booklet has concentrated on "Studying Societies" and "Origins of Humanness." Everything that has been said here, as well as the experiences that students have with those two parts of PATTERNS, is relevant to "The Emergence of Complex Societies" and "Modernization and Traditional Societies." Their experience will have included: differentiating between their own observations and the inferences they draw from observing; analyzing human behavior and classifying it into categories that give some higher meaning to the data; detailed observation and classification of data; making inferences from the known to the unknown. To the extent that the first two parts of the course differ in this regard, "Studying Societies" includes somewhat more classification into categories, whereas "Origins of Humanness" includes somewhat more speculating and inference making. The analysis given in this booklet of difficulties some students have in developing those skills, and the discussion segments provided here, can serve as models for teachers helping students who have similar problems in "The Emergence of Complex Societies" and in "Modernization and Traditional Societies."

PATTERNS IN HUMAN HISTORY

AN OVERVIEW

Patterns in Human History consists of four broad topics. The course begins with a "how to" book: *Studying Societies*. This basic orientation provides some ideas and tools for observing and recognizing patterns in human behavior. The life ways of two primitive societies, the Bushmen and the Mbuti, provide some of the data for investigating one type of human society—hunter-gatherers. *Studying Societies* sets the stage for using the three other parts of *Patterns* either as a sequence or in various combinations:

Origins of Humanness presents the evidence for two million years of "human" existence and gives some insight into what the development of humanness has involved.

The implications of food producing for the development of new types of societal organization is the central theme of *The Emergence of Complex Societies*. Tribal organization as one new type of society is discussed. Particularly significant topics considered here are: the rise of the earliest civilization, the evolution of law, and the significance of religion in human life.

In *Modernization and Traditional Societies*, peasant society completes the typology of human societies, and the dilemma of traditional society in a world of complex societies is considered.

INTRODUCTION TO THE TEACHING PLAN

This is a teaching plan. It is not a set of casual suggestions but a *plan* for a specific sequence of topics, materials, and activities. The plan is so specific that it may seem to suggest that the teacher is viewed as a mechanical agent. This is not the case. The full intellectual involvement of the teacher is required, as a look at the Teacher Background section of any lesson will confirm. The nature of the teaching plan is related to—and contributes to—the distinctive character of *Patterns in Human History* and to the distinctive role of the teacher.

The goal of the plan is the effective teaching of a course that blends anthropology and history. However unfamiliar a teacher may be with anthropology, this plan makes effective teaching possible from the very beginning. But it does something else. The teaching plan is itself a course in anthropology. Teachers who study its ideas seriously and work through them in classroom situations will become professionally competent in anthropology.

Paradoxically, this will free the teacher in subsequent years from the teaching plan. The short-range goal of the teaching plan is to make possible the effective teaching of *Patterns*. The long-range goal is to increase the professional autonomy of the teacher and make possible increasingly effective teaching of the anthropological ideas that, in the teacher's judgment, contribute to the social studies.

Such functions for a teaching plan are not a matter of speculation. Several years of experimentation in schools around the country demonstrated specific results. Over 90 percent of the cooperating teachers who tested experimental versions of the course materials had no previous training in anthropology; but they were as effective as teachers who had had such training. The only requirement: The teacher must make full use of the teaching plan rather than routinely follow the suggested procedures. This means careful study of the substantive ideas in the Teacher Background sections.

The course, *Patterns in Human History*, is in a real sense to be found only in the teaching plan. The student materials, for good reasons, have no inherent organization. The Readings do not have introductions that tell the student what the Readings mean. The significance of the full mix of materials—Readings and other media—emerges from intellectual operations that are under the control of the teacher. This strategy avoids undermining the inquiry process and thus offers the best opportunity for original analysis of the data and for open-ended insight.

Finally, the teaching plan will provide, as it is used, the best answers to the questions: What kind of course is *Patterns*? Is it an anthropology course? A history course? How does it contribute to the social studies curriculum?

There are short—and simplistic—answers to these questions. Yes, it is an anthropology course but of a special kind, not modeled after any existing course. Yes, it is a history course, but much of the data comes from groups without political identity, and the focus is not on this group or that but on the long-range development of human societies and human nature. Yes, the course will contribute to the social studies curriculum through acquisition of social science tools and attitudes applicable throughout the social studies, through encouragement of a non-ethnocentric intellectual posture, through affective identification with man in all his cultural guises.

But such answers are not very helpful. The real answers will be empirically derived through classroom experience. The teaching plan is meant to structure that experience, to make it productive and satisfying.

TEACHING PLAN

STUDYING SOCIETIES

PATTERNS IN HUMAN HISTORY

A course of study prepared by the
ANTHROPOLOGY CURRICULUM STUDY PROJECT
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THE MACMILLAN COMPANY
NEW YORK, NEW YORK
COLLIER-MACMILLAN LIMITED, LONDON

STUDYING SOCIETIES

Patterns in Human History: Studying Societies covers three topics:

Life in a Small Society – description
How Human Societies Operate – the significance of status and role
Life in a Small Society – analysis

Each topic will take about a week; together, they constitute a program for studying societies. The strategy that connects them is as follows.

In the first topic, students have an initial encounter with a group of living hunter-gatherers and ponder briefly some of the problems inherent in observing and describing unfamiliar societies. The students obtain data on the Bushmen of the Kalahari Desert from two observers, one a professional anthropologist. The information they provide comes to the students in two forms: one a reading, the other a sound filmstrip.

Topic 2 shifts the students' attention to his own surroundings for an exploration of the extent to which status and role structure all human activities. Worksheets are used to program the students' observations. Such study will help the students understand how societies operate.

The third topic introduces the students to another group of hunter-gatherers, the Mbuti Pygmy of the Con-

go rain forest. Topic 3 thus broadens the students' inventory of information about one type of human society – hunter-gatherers. But the other purpose for the activities of Topic 3 is to give students practice in using the technical concepts, *status* and *role*. For that reason, the data on the Mbuti comes in a relatively raw form. Students work directly with the kinds of information (or facsimiles thereof) available to the field anthropologist – interviews and direct observations. The student is put in a position to be an observer and analyst in his own right.

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Record 1:
Side 1: "The Bushmen in the Kalahari Desert"

Readings:
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"People of the Kalahari"
Transcript of "The Bushmen in the Kalahari Desert"

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Topic 2—How Human Societies Operate: The Significance of Status and Role / 14

Materials

Overhead Transparencies:
- How Do You Talk to Who?
  - Base and six overlays
  - Sheet of dialogue statements
- Utica, Mississippi

Illustration: Status in Humor

Blackline Masters:
- Status Names list
- Who Am I circles
- Legal-Moral-Popular sorting circles
- Status Ranking chart
- Drawing of photograph
- Income tax return sheet
- Newspaper story "Debate Prof Firing . . ."
- Characteristics Profile
- Age chart
- Choice/Non-Choice sorting sheet
- Access Profile

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Record 2:
- Side 1: "Interview Between an Anthropologist and an Mbuti Girl"
- Side 2, Band 1: "The Molimo"
- Side 2, Bands 2, 3, 4, 5: "Tales of the Mbuti"

Illustration: An Mbuti Camp

Readings:
- "The Crime of Cephu"
- "A Good Death"
- Notes on the Record "The Mbuti of the Ituri Forest"
- Transcript of "Interview Between an Anthropologist and an Mbuti Girl"
- Transcript of "The Molimo"
- Transcript of "Tales of the Mbuti"
- "Njobo, the Elephant Hunter"

Blackline Masters:
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TEACHING PLAN

ORIGINS OF HUMANNESS

PATTERNS IN HUMAN HISTORY

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ORIGINS OF HUMANNESS

LAB PROBLEMS IN CULTURE AND EVOLUTION

There is no subject so fascinating as oneself, and *Patterns in Human History* attempts to pose and to deal with some basic questions about ourselves. Being human is something special, we feel quite sure. But what is special about humans? The following Lab Problems, presenting evidence for two million years of "human" existence, give some insight into what the development of "humanness" has involved.

The purpose of the Lab Problems is not to make amateur archeologists or anatomists of the students. But the lab approach does involve students in anthropological methods of investigating man's origins and development. In attempting to cope with unfamiliar materials, the student must test his powers of observation and analysis with the expectation that, with each problem, he will become more confident of his ability to interpret validly, in ways relevant to the subject matter and meaningful to himself.

In general, the Lab Problems proceed from simple and concrete (What can you learn from this stone object?) to complex and abstract (How might increases in population density influence the rate of cultural innovation?) The accent is not only on human phys-

ical and cultural evolution but on analysis of the intellectual means by which we are able to proceed from evidence to conclusion. In this part of *Patterns*, we are establishing important answers to the questions: Who are we? and, What are we like? Who we are and what we are like is not only a matter of biological identity, it is also a matter of behavior. And the patterns of behavior that are human are the result of a very long process of selection for traits that worked within a system of adaptation. That, after all, is what evolution has produced. Being human is being part of a particular social and biological adaptive system. Language, tools, upright posture, the family—these are all parts of the total system. And it is the total system that distinguishes us as a species.

As you will soon see, there are a number of different kinds of lessons in this section, representing several different pedagogical techniques and emphases. In some cases, the purpose of the lesson is to convey a particular set of anthropological background information, ideas or concepts that are in some way basic to the students' further progress in the course. In other cases, the aim of the lesson is to help the students learn, usually through experience, how to use research techniques and attitudes that form the bases of anthropological (and social science) method.

While you may initially, therefore, see a kind of unevenness in the distribution of kinds of objectives and suggested teaching techniques from one lesson to the next, we hope before long you will perceive it as an attempt to establish a learning "rhythm" by which the student may continually enhance and refine the method he is learning to use by applying it at regular intervals to new and increasingly abstract kinds of information.

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Man, Gorilla, Australopithecine Spines
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"The Search for Our Ancestors"
"How to Know an Ancestor When You Find One"
"Form and Function"
Blackline Master:
Pleistocene Questions
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Overhead Transparency:
- Four Skulls
- Base and three overlays

Readings:
- "The Pleistocene"
- "Dating Techniques"

Evidence Cards:
- Fossil Cards FC 1–13
- Culture Cards CC 1–6

Cast:
- Pebble tool

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Materials

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- "Language Is One Kind of Communication"
- "What Does a Tiger Mean?"
- "Brains, Tools, Society"

Blackline Master:
- Human Traits

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Materials

Overhead Transparency:
- Areas: Australopithecine, *Homo erectus*, and Mousterian Man
- Base and two overlays

Readings:
- "Campsites of the Middle Pleistocene: The Evidence"
- "Hunters and Gatherers of the Middle Pleistocene: Speculation on the Evidence"
- "Stone Tools"
- "The Mousterian Mind: Some Questions"
- "Modern Men of the Late Pleistocene"
- "The Imagination of Early Man"

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- Mousterian point
- Backed blade
- Venus of Willendorf

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- "Psychological Fallout"

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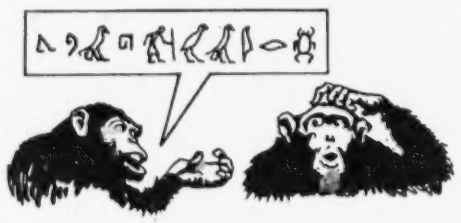
LESSON THREE



Students consider the characteristics that seem to make human communication unique and also contrast human and animal communication. They incorporate these characteristics into their definition of *human*.

MATERIALS/EQUIPMENT

Readings:
- "Language Is One Kind of Communication"
- "What Does a Tiger Mean?"

OBJECTIVES

1. Students should recognize several characteristics of human language that seem to make it unique among all forms of animal communication.
2. Students should be able to speculate about the place of language and the place of the meaning-process in human evolution.

SUGGESTED PROCEDURES

Begin the discussion by asking:

> What difference is there between language and communication?

The students should observe that language is a kind of communication with certain specific characteristics; hence, "communication" is the more inclusive term. These terms are easily confused.

Encourage the students to amplify and to establish the boundaries of what language is by giving examples of nonlinguistic communication.

> We whistle for our dog and "tell" him to "speak." This uses special apparatus, but is it language?
>
> Could we have language without sound? Written language, flag-signaling systems, Indian sign language – are they language or communication?
>
> How is bee "language" similar to, and not similar to, true language?

Examine the three characteristics of language discussed in "Language Is One Kind of Communication."

> How were the ideas of displacement, combining few sounds into endless messages, and openness explained?

By defining language this way, the author is saying that language is unique to humans. As a way of discussing the implications for human evolution, students could speculate about:

> If we had always been voiceless animals, could some kind of language have developed? If so, how would we be different today?

Before the class goes too far into science fiction for inspiration, turn the discussion to a consideration of the meanings-process as outlined in "What Does a Tiger Mean?" Ask the students for examples of the meanings-process from their own experience and knowledge. Examples might include smoke from industrial chimneys and cigarette smoking.

Help the students identify the "names" used in their description of the meanings-process. (See Teacher Background 2.)

Then ask:

> Do we know for certain that no other animals create meanings, that is, have the meanings-process? Or, have we not discovered other kinds of animals that do?
>
> How would we find out whether other animals do? (See Teacher Background 3.)
>
> If a definition of a tool is something that manipulates objects, can language (including meanings) be defined as a tool for manipulating people? Is this a significant aspect of being human?

Urge the students to further define the term *human*. Remind them of their earlier discussion of the term *culture*.

> Does defining *human* raise problems similar to those of defining *culture*? Is this because they are somehow closely related?

Turn to the chart "The Human System" (Readings, pages 58–59) and explain any unfamiliar terms: *gestation*, *innate*, or *acquire*.

HOMEWORK/PREPARATION

Read "Brains, Tools, Society."

TEACHER BACKGROUND

1. Human language and the brain:

With an examination of language and the meanings-process, we delve more deeply into some of the psychological aspects of human behavior. It is important that students recognize and discuss those aspects of human language that seem to make it unique.

Language is an important and implicit part of humanness. We have looked at many physical characteristics of humanness and some related behavioral characteristics – for example, bipedism and technology – but we have said relatively little about the development of the human intellect. There are, of course, very few exact data with which to work.

Modern research has shown that there is no single speech area of the brain; language depends on the complex interaction of many parts of the entire nervous system. It is possible to identify certain parts of the brain as basic to language and to make the contrast between man and animals as to the development of these parts. One can infer from this comparison that language must have influenced not only the sheer growth of the human brain but also its particular configuration.

Much of the motor area in man's cortex (the area which controls the voluntary movement of the different parts of the body) is devoted to control of the organs that produce the sounds of language. In lower animals that have a cortex, almost all of it is occupied by the areas responsible for sensations and motor control. As we come closer to man in the evolutionary scale, more and more space on the cortex is occupied by portions that lie between these sensory and motor areas. These intermediate portions are referred to as *association areas*. In man the association areas take up most of the cortex, and it is their development that has caused the increase in the size of the human brain.

We do not know when the increase in association areas began nor when increased motor ability to manipulate the organs of speech began. It is conceivable that they began very early in human evolution, perhaps at or before the australopithecine level.

2. Naming:

The ability to name depends on the ability to form associations, particularly visual-auditory and tactile-auditory associations. People name not only objects, such as *people*, *tree*, *city*, but also attributes, such as *sweet*, *bitter*, and processes, such as *walking*, *sitting*, *standing*. It is only when you can give a name to *standing*, for example, that you can control whether or not people do it: "Stand up," or "Don't stand up." "Run behind the big tree and we'll trap that elephant."

3. The meanings-process:

Any class, when seriously considering any reasonably honest set of materials, will inevitably come to the point often when they say, "We don't know." This can become an asset, a force for additional learning, when the teacher and the class recognize and act upon two steps in scientific inquiry: (1) deciding what visible things (or behaviors) are meant by the key words, and (2) testing for the presence or absence of those visible things (or behaviors).

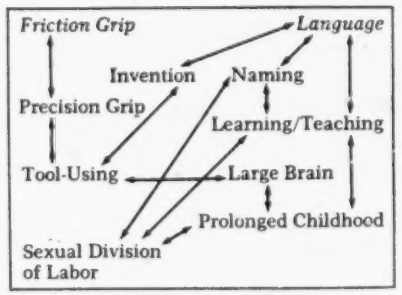
Words like *creating meanings* and the *meanings-process* refer to things visible in the world. When an investigator states: "Sea gulls do not create meanings," he refers to the presence of

certain visible sea-gull behavior and also to the absence of certain thinkable sea-gull behavior. The first order of business for the teacher and the class, then, is to make sure what visible things the key terms are intended to denote.

The proposition "Sea gulls do not create meanings" means in essence that "We have watched for this and that behavior among sea gulls and have so far failed to find such behavior, and we are unable to imagine any other behavior that would reasonably be termed creating meanings. We are still looking."

When a class at some inevitable point must say, "We don't know whether or not those pigeons outside the window are creating meanings," and when what remains is simply an opposition of opinions—"Yes, they are," "No, they aren't"—the class has reached an impasse. There is no sense of useful closure and there can be a sense of defeat. It would follow, however, from the above two facts about the nature of scientific knowledge that this impasse can be avoided by imitating the scientists. The class should review what visible things in the world are meant by the key words, and, in so doing, transform the impasse into an empirical question: What thinkable pigeon behavior could we look for which, if we see it, would indicate that those pigeons are, in fact, creating meanings? Then it would not matter how long the questions were pursued. The purpose is to acquire a better understanding of the original problem and to acknowledge that the question remains open for further investigation. This is a form of closure. However unsatisfactory this form of resolution may seem to the students, it has the advantage of being true and, therefore, in the long run, convincing and rewarding.

LESSON FOUR



Students discuss the interaction between anatomy and behavior and explore the concept of feedback, recognizing the complexity of that idea. They speculate about the changes that might have taken place in our species in the process of becoming human.

MATERIALS/EQUIPMENT

Reading: "Brains, Tools, Society"
Culture Evidence Card: CC 6
Blank OHT and marking pencil
Overhead projector

OBJECTIVES

1. Students recognize that feedback is an interaction between organism and behavior.
2. Students recognize that because feedback is a very complex interaction involving all aspects of the organism and of individual and group behavior, no study can describe all its ramifications.

SUGGESTED PROCEDURES

On a blank OHT, reconstruct the mini-web (Readings, page 56) by asking the students for the anatomical and behavioral terms appearing in the web. Discuss the feedback between the various pairs and groups of terms as you proceed and clarify any questions

TEACHING PLAN

THE EMERGENCE OF COMPLEX SOCIETIES

PATTERNS IN HUMAN HISTORY

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THE EMERGENCE OF COMPLEX SOCIETIES

What has happened to the human species, to human societies, to the qualities of human experience, over the last 10,000 years? The answer provided in *Patterns in Human History: The Emergence of Complex Societies* is macroscopic but not simplistic. It is that new kinds or types of societies have emerged, differing in scale and complexity from the hunter-gatherer societies in which all human creatures had hitherto lived and in which the traits of the human system of adaptation had been forged.

These new types of societies were *tribes* and *states*. But were tribes new? Not entirely. In popular usage "tribe" is an appropriate term for any "primitive" society and thus might seem to generally fit the hunter-gatherers of the Pleistocene. "Tribe" is used here in a more technical sense, as a society generally larger and more complex than a "band." Some of the hunters of the Upper Paleolithic might have lived at a tribal level where and when the harvesting of animal herds provided a rich and dependable supply of food; most probably they did not.

The emergence of tribal societies on a wide, pan-species scale—and the emergence of the even larger and more complex societies we call states—was based on a quantum step in the means

of obtaining food: the development of domesticated plant and animal species.

The development of food-producing represented a radical change in probabilities. There was an absolute growth in the amount of food obtainable from a given area (and thus the given area could support more people), but there was also a dramatic growth in the dependability of supply. Human institutions could thus develop on the assumption of dependability.

The agricultural revolution is .ot, of course, an unfamiliar topic in social studies classrooms. The treatment here focuses on archeological evidence of that revolution and on sociological speculation about its immediate and long-range consequences. In other words, what and how do we know about the revolution, and what difference did it make?

The archeological inferencing and sociological speculating center initially on a single site in Southwest Asia—Jarmo. The people of Jarmo—and the people of many similar villages in the same region—were practicing effective food-producing by 6700 B.C. But Jarmo was not the beginning of food-producing. The transition to fully effective food-producing required several thousand years. Much earlier sites, with some evidence of domesticated species, have been found.

The idea of food-producing diffused, eventually, from several points of origin. And the human species began to change at an accelerated rate. If creatures from outer space had visited the earth every 4,000 years to take a census of its living species, they might have reported something like the following:

10,000 B.C. The species that calls itself "human" is widely distributed over most of the land areas of the planet, in many different climates, but generally these creatures live in small groups of from 25 to 100 individuals and sustain themselves by collecting vegetables and small animals and by hunting larger animals.

6000 B.C. The larger part of the human species continues to live as it did in the last report, but a very small proportion of the total human population produces its own food through deliberate care of certain plants and the maintenance of animal herds. The few groups living in this fashion have generally larger populations and tend to remain settled for longer periods in one place, building more permanent structures in which to live.

2000 B.C. More human groups are now producing their own food, but many continue to subsist through collecting and hunting. And there has been a new development—a very small part of the species is now living in very large settlements called cities. The individuals in these cities live on food produced by individuals who do not live in cities but who are evidently controlled by those who do.

By the time of Christ, perhaps most of the world's peoples were living in tribal, food-producing groups. These groups were extremely varied in their ecological specializations and in their institutions, but generally they had worked out ways to create a sense of common identity among populations larger than hunter-gatherers, ways of redistributing material wealth, ways of living a settled, village kind of life.

But there had been another development—the emergence in a few places of societies that were *much larger* and *much more complex* than tribal groups: the emergence of the state.

The lessons on Jarmo (food-producing revolution) are followed by a case study of what is probably the world's first state—Sumer. Emphasis is on the distinctive organizational characteristics of large, urban societies, especially on differentiation of roles and uneven distribution of power and wealth.

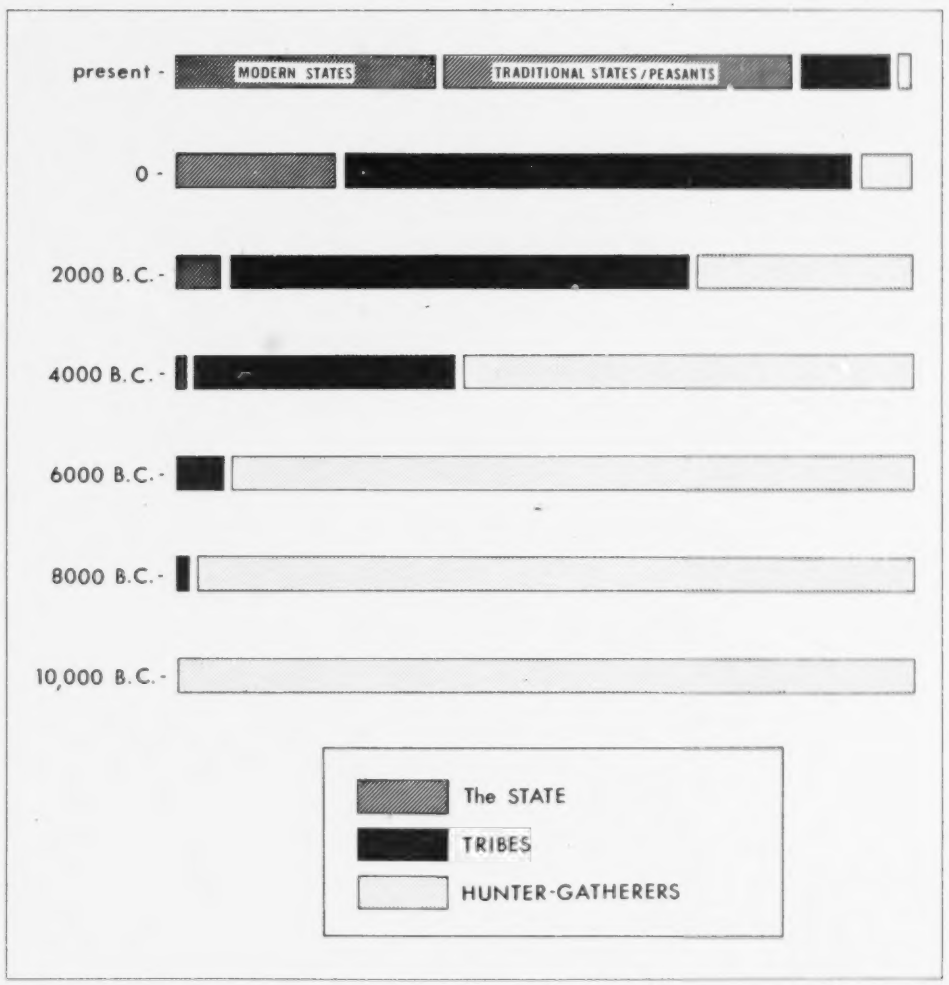
Then, after several weeks of intensive work on Sumerian data, students turn to ethnographic descriptions of tribal groups. Thus the sequence of topics is: Jarmo; Sumer; Tribesmen. The order of topics is not, of course, a representation of the order in which the tribes and states emerged in history. Certainly there were some tribal groups before there were any states. And the life history of any given state

almost certainly includes something approximating a tribal stage. But not all tribes change into states, and some states have changed to tribal organization. Most important of all, remember that change in evolutionary terms is not "progress." It is merely change in the direction of improved adaptiveness, given the factors of the moment.

Whether or not change is viewed as progress, the centuries between 10,000 B.C. and the present are marked by profound developments in the nature of human societies. Twelve thousand years ago, all human beings lived in hunter-gatherer societies. At that time—and for all of human history preceding—a single type of society prevailed. A typology of human societies today reveals at least four broad types: (1) tiny remnants of hunter-gatherers, (2) tribes, (3) traditional states based on peasant economies, and (4) modern states based on industrial economies. There are, of course, transitional types.

Between 10,000 B.C. and the present, then, new kinds of societies have emerged. Our focus is on the generic characteristics of tribes and states and on the technological invention (food-producing) that underlies their development.

You may find this chart helpful for sketching the above ideas as an introduction for the students:



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Part 2: "The Revolution at Jarmo"
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Jarmo figurine
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"Sumerian Artifacts"
"The Temples of Inanna"
Record:
Side 2: "The Temples of Inanna"
Cast:
Clay tablet
Readings:
"Deciphering Cuneiform Writing"

"Cuneiform Text Translations"
"Two Sumerian Statues"
"Jarmo to Sumer to Babylon"
Periodic Table
"Writing and Power"
"One View"
"Cities, Kings, and Gods"
"Mesopotamian Archeology: Seizure and Search"

Art:
Map of Mesopotamia

Overhead Transparency:
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Base and sheet of peel-off chips

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TEACHING PLAN

MODERNIZATION AND TRADITIONAL SOCIETIES

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MODERNIZATION AND TRADITIONAL SOCIETIES

In this part of *Patterns*, we will consider a social pattern that has persisted for the last four thousand years, since the first complex societies developed: that is, states which have an agricultural base and a submerged agricultural labor force. Such societies have continued into modern times. Today we call them traditional societies. Many of the crucial issues (and much of the agony) of our own times arise from the conflicts of tradition, industrialization, and modernization.

The traditional state is a peasant state. The majority of the population in traditional states is engaged in agricultural production, but the arrangements may vary. The traditional state does not have a culture in which all members of the society participate, but a "high" culture and a "low" culture. The peasants produce the agricultural wealth of the society, and they are connected to the larger society outside their villages because they must pay some of what they produce as rent, taxes, and interest. But they do not share access to political power, to literacy, to the religious forms of the elite. They are rural, uneducated, poor, and quite powerless villagers. It is not exaggerated to say that they are oppressed and exploited.

It is ironic that social systems based on dramatically unequal allocations of

power and wealth are able to stabilize precisely because culture is such a powerfully flexible means of adaptation. Oppression and deprivation are bearable because men oppressed and deprived are able to devise cultural defenses that make life at least marginally livable.

When change does occur in peasant life, it comes for differing reasons and in various forms. These reasons and forms are part of the centuries-old process of modernization — a process that is glimpsed here in an extensive case of planned modernization in highland Peru, modernization through flight to the city (in this case Lima), and a brief study of values in Chan Kom, Mexico.

How marginal life can be in a traditional society is documented in the case study of a Peruvian community. This community, Vicos, in the Peruvian highlands, is an important anthropological site, but not in an archeological sense. It is a village of living people, and since 1952, it has been the scene of an intensive effort in anthropological research.

A comprehensive effort has been made to transform the lives of the people of Vicos. In studying that effort and its results, to the extent that they are known, students will have an opportunity to consider the assumptions and theories of social change with which anthropologists approach the task. They will also have the chance to become intimately familiar with the practical and prosaic problems that go with directed social change, as these manifested themselves in the daily lives of the people of Vicos.

We look at peasants, then, as a way of learning some things about traditional societies of our own times, as a way of gaining perspective on crucial international issues, and as a way of learning yet more about culture as adaptation.

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WHAT IS ANTHROPOLOGY?
FOUR SAMPLES

EDWIN S. DETHLEFSEN

INTRODUCTION

* *What is anthropology?*

* *How does anthropology meet high school curriculum needs?*

* *What do I need to know to use anthropology in my teaching?*

These are the questions most often asked of the Anthropology Curriculum Study Project about its course PATTERNS IN HUMAN HISTORY. They are hard questions to answer effectively, each for reasons of its own. So let's look at them again:

* *What is anthropology?*

Teachers who ask this question clearly want an answer that is more than the dictionary definition. Our answer really cannot be conveyed simply with words. An *experience* with anthropology, we believe, can better give you our concept of anthropology.

* *How does anthropology meet high school curriculum needs?*

The brief, well-reasoned answers from teachers include:

"Anthropology provides a frame of reference for looking at history";

"Anthropology provides tools for finding and analyzing the characteristics of societies and their interrelationships";

"With anthropology one can enhance the objectivity with which he is able to examine his own society."

But such statements are not enough to convey the true difference of anthropology from other subjects. How *can* an "in depth" examination of a prehistoric stone tool be of any use to a social studies class preparing to deal with contemporary social problems? How *can* a Pygmy hunting incident or the remains of a Bushman encampment have any relevance to the concerns of history and social studies classes here and now?

We could explain at length, but the best way to discover the answers is to *experience* the relevance of anthropology in your classroom.

* *What do I have to know to use anthropology in my teaching?*

The answer is, of course, "That depends." It depends, most of all, on how you choose to teach. If you feel most comfortable lecturing, then you need a good deal of factual as well as methodological background. PATTERNS IN HUMAN HISTORY has an exceptionally thorough teacher's guide, which might suffice, with the aid of a few supplementary books, to give a studious teacher a semester's worth of lecture notes. But most of the real learning in this course, as well as in the field of anthropology itself, comes from the development of ideas by inference, after careful examination of data. So if you can "turn on" to the idea of exploring ideas *with* your students, you don't really need to know any *official* anthropology at all in order to teach this course. If you are willing to relinquish the role of *expert* in favor of that of *leader*, you will find more than enough suggestions in the Teaching Plan for the successful use of the course materials.

We know that such an answer can't completely eliminate the fears of teachers who are about to wade into an unfamiliar area of knowledge. And we know that the only really effective fear preventive is a little *experience*.

In the next few pages are sample lessons from the ACSP course, PATTERNS IN HUMAN HISTORY (possible remedies for that affliction of uncertainty), through which you can find answers to the questions for which our words alone are not enough. The lessons aren't guaranteed to do anything but help you decide, really, whether the methods of anthropology can be useful in your classroom. They are, if you like, merely guided tours to significant parts of the course. We hope you will try taking the tours with a class, for they are still only words if you don't. Even though taken out of context in the design of the entire course, these samples suggest the type of information given and methods proposed throughout.

The position of the sample lessons in the overall course is shown in the listing of contents below.

PATTERNS IN HUMAN HISTORY

STUDYING SOCIETIES

TOPIC 1: LIFE IN A SMALL SOCIETY: DESCRIPTION
(four lessons)

Lesson One (Sample Lesson I)
Study of the Bushmen of the Kalahari Desert (from filmstrip and readings) as a present-day culture of the hunter-gatherer kind, with stress on the problems of describing unfamiliar societies.

TOPIC 2: HOW HUMAN SOCIETIES OPERATE: THE SIGNIFICANCE OF STATUS AND ROLE
(five lessons)

Lesson Two (Sample Lesson II)
Introduction of terms "status" and "role"; status versus non-status; differences in expectations about different statuses.

TOPIC 3: LIFE IN A SMALL SOCIETY: ANALYSIS
(five lessons)

ORIGINS OF HUMANNESS

PREPARATION FOR LAB PROBLEMS
(four lessons)

PROBLEM 1: FOSSIL AND CULTURAL EVIDENCE
(three lessons)

PROBLEM 2: WHAT DID CULTURE AND ANATOMY HAVE TO DO WITH EACH OTHER?
(four lessons)

PROBLEM 3: CULTURAL DEVELOPMENTS FROM AUSTRALOPITHECUS TO HOMO SAPIENS
(five lessons)

SUMMATION: WHAT HATH EVOLUTION WROUGHT?
(four lessons)

THE EMERGENCE OF COMPLEX SOCIETIES

TOPIC 1: JARMO
(two lessons)

TOPIC 2: SUMER
(eleven lessons)

Lessons One and Two (Sample Lesson III)
By analyzing cuneiform texts, students begin to see the kind of society represented by the texts.

TOPIC 3: TRIBES
(five lessons)

MODERNIZATION AND TRADITIONAL SOCIETIES

TOPIC 1: PEASANTS
(six lessons)

Lesson Four (Sample Lesson IV)
Peasants' adaptation to exploitation, to their powerless position in society.

TOPIC 2: MODERNIZING A TRADITIONAL SOCIETY
(seven lessons)

TOPIC 3: THREADS
(two lessons)

PATTERNS IN HUMAN HISTORY is rich in materials and objects that students can look at, listen to, and handle—filmstrips, records, and archeological artifacts. The full variety of such non-text materials can't be conveyed here, nor can the style and scope of the student readings. But the outline just given should at least indicate the kind and extent of ideas developed.

Since the sampling to follow represents somewhat disconnected parts of the course—not a complete tour in logical sequence—chances are you won't get the full potential intellectual mileage from these lessons. In teaching the entire course you would find, for one thing, that each lesson is built upon the sum of those that went before, just as it, in turn, becomes a part of the foundation for the ones that succeed it. In a sense, then, the only lesson that really stands by itself is the first lesson in the course!

Even so, every lesson does have something of its own that is not strictly dependent on the course context—an observation that we hope these sample lessons will support.

SAMPLE LESSON I

From PATTERNS IN HUMAN HISTORY: Studying Societies
Topic 1: Life in a Small Society: Description, *Lesson One*

The first lesson we have selected is also the first lesson of the course. The most important task of the first day will be to alert students to some of the problems in studying societies, particularly small and relatively simple ones, manifestly different from our own. These problems originate in the power of our own culture to affect our vision. Students need some demonstration of the selective seeing induced by our life in an industrial society. And they need some sense of the very human proneness to judge difference as inferiority. As an industrial people who place a high value on machine technologies, Americans are particularly likely to think that people with less complex technologies are inferior human beings. It requires a conscious effort of objective analysis to accept nonindustrial peoples as fully human. This is a basic problem with broad implications to which we must address ourselves at the outset.

A small part of the lesson as published involves introducing the class to a general outline of the entire course—identifying some of the goals of PATTERNS IN HUMAN HISTORY through a discussion of the "Introduction." Since you are only trying out sample lessons, that part has been omitted here, allowing you to spend the entire class period on the main part of the lesson: observing and commenting on a picture that illustrates the life of people in a society extremely unlike our own. In this activity students learn something about the selective vision with which we observe any human scene—and why it matters. The essential photograph (Frame 18 from the filmstrip "The Bushmen in the Kalahari Desert") is here provided in the form of a drawing which, hopefully, you can reproduce or project. Except for that difference and the omission of references to the course "Introduction," the material that follows is the same as that in the published Teaching Plan.

Introduction

Students describe what they see in a drawing based on a single frame from the filmstrip "Bushmen" and analyze their descriptions in order to identify the comments they have made as objective or subjective.

Materials/Equipment

Drawing based on Frame 18 from the filmstrip "The Bushmen in the Kalahari Desert"
Optional: overhead projector and small pieces of clear acetate (4" x 5") and transparency marking pencils for students (one class set)

Objective

In studying a picture of some contemporary hunter-gatherers, students should be able to recognize the difference between an objective description and a description that includes an implicit judgment or an evaluation.

Suggested Procedures

1. Even though it seems like an abrupt beginning, you may find it advantageous to open the lesson by distributing or projecting the drawing based on the Bushmen filmstrip.

Simply tell the class: "I want you to look at a picture and write a description of what you see." Then project the picture for perhaps thirty seconds.

2. The most effective way to analyze and compare their descriptions is to have the students write them on pieces of acetate, using transparency marking pencils. The descriptions can then be placed on the stage of the overhead projector and discussed. By using this technique, you can circle and discuss significant terms and, since several descriptions can be placed on the projector at the same time, they can be compared. You may want to project the picture from the filmstrip again while you are discussing the descriptions.

There are several specific things to look for during the comparison and discussion of the student descriptions and to identify as characteristic of subjective or objective description:

patterns of attention (what is noticed and reported?);

patterns of omission in the descriptions (not noticed? or is noticed and not reported?);

variations in the amount of detail reported (some students will see and report more than others);

variations in the accuracy of their observation;

inferences versus observable facts ("These women are talking about their children" versus "These people are sitting on the ground");

use of invidious terms.

3. One way to proceed is to list some of the responses. For example, how many students indicated the number of individuals in the picture? Probably not many did. This would be an instance of a pattern of omission.

How many of the students said something about where the people in the picture lived? Is this an observable fact or an inference? Did they substitute the place where the people presumably lived for some other way of identifying the people? For example, instead of describing them as "dark-skinned" or "Negro," did the students identify them as "Africans"? If there was this kind of avoidance, what does it indicate about the effect of our own rules and taboos on our ability to make scientific descriptions?

How many students commented in their descriptions on the bare breasts? Were euphemisms used for "breasts"?

In what proportions were such terms as "primitive," "tribal," "savage," or "backward" used? Which of these terms connote inferiority?

A complete examination of these questions would require days, but this is not meant to be a lengthy exercise. Hopefully there will be some reasonably dramatic examples that will be perfectly adequate substitutes for exhaustive analysis. In every class some evidence should confirm the fact that description is not as easy a skill as it might appear, that the attainment of objectivity requires effort, and that describing unfamiliar cultures has complications. If these ideas are understood, enough has been accomplished.

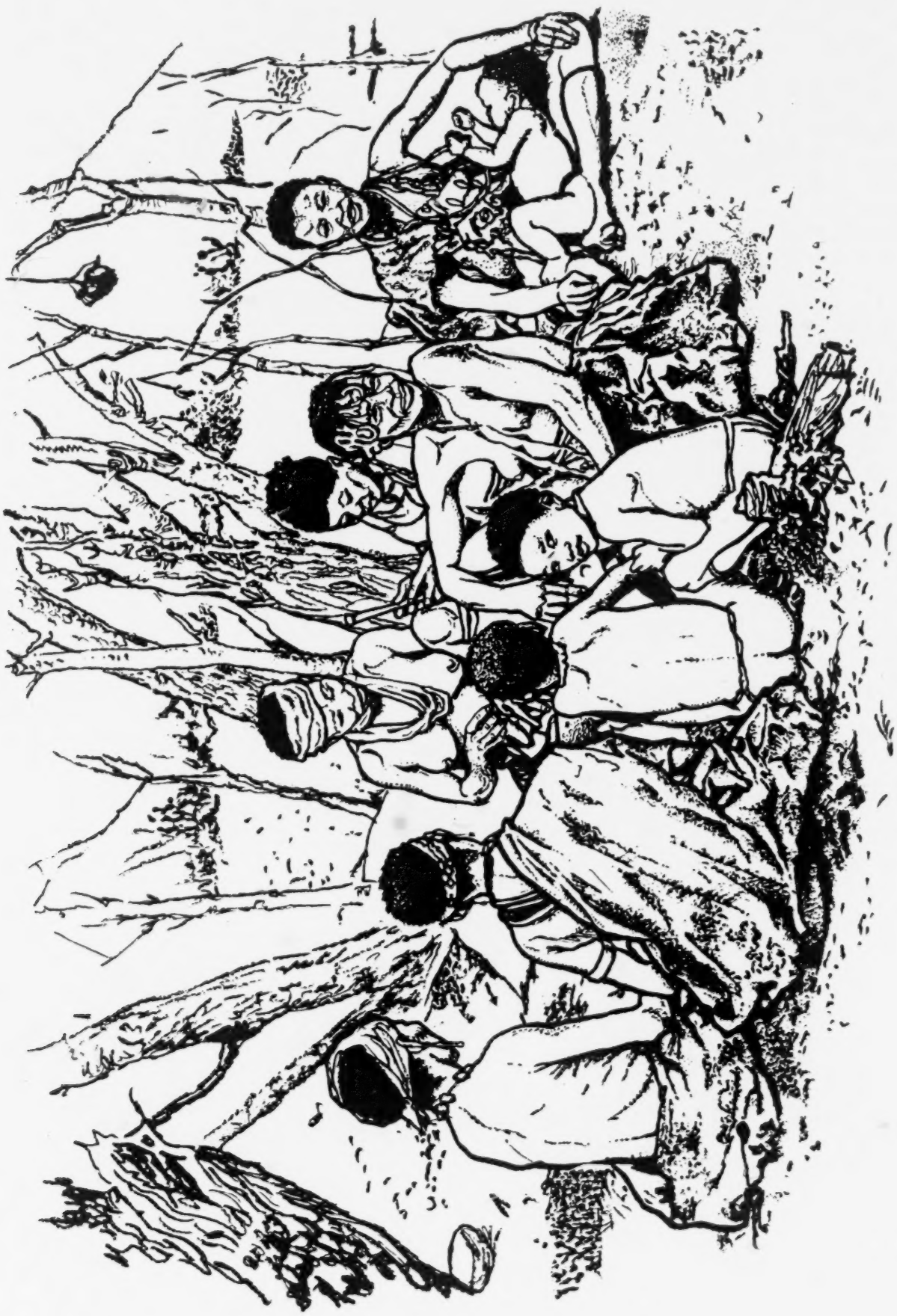
Now, did this first sample help to:

(1) convey some idea of what anthropology is?

(2) suggest relevance of PATTERNS IN HUMAN HISTORY to modern social studies curriculum needs?

(3) demonstrate the teachability of PATTERNS IN HUMAN HISTORY by teachers without formal anthropology training?

Perhaps not altogether, but then this is only the *first* lesson in the course.



SAMPLE LESSON II

From PATTERNS IN HUMAN HISTORY: Studying Societies
Topic 2: How Human Societies Operate: The Significance of Status and Role, *Lesson Two*

Let's skip ahead a week or so, to see how some more important *anthropological* ideas are treated. We think you may see also that some of the anthropologists' mental tools are far less exotic or esoteric, and far more broadly useful, than you might have imagined.

The essential thing about human societies that sets them off from nonhuman societies is that they operate by rules, rules that are created, modified, discarded. The rules do not exist in limbo. They are attached to, or associated with, particular social identities, or social positions, or *statuses.* The rules specify particular behaviors and expectations for individuals occupying these social positions or statuses. We use the term *role* to describe the behaviors associated with a particular status. Statuses and their associated roles are found in all human societies. They are the basic format for human behavior. The statuses that any one individual occupies provide him with his set of instructions for living in his society. The combined statuses of all the individuals in the society constitute a system under which the society operates. These lessons on the significance of status and role are the basis for later analysis of whole societies and an understanding of the ways in which societies differ.

Five lessons under "Studying Societies" are devoted to this significant aspect of human behavior. Sample Lesson II is based on the second of that series, but parts have been adapted from other lessons to make this sample a more self-sustaining unit. We cannot provide here all the materials used in all five lessons, but we have included the essential materials from which you can make copies for class use.

Introduction

The technical terms status and role are introduced and students learn (1) to distinguish status from non-status; (2) to perceive differences in expectations about statuses by identifying pairs and their respective expectations.

Materials/Equipment

Student worksheets locally duplicated:
- Status in Humor (cartoons)
- Status Names list
- Who Am I circles

Objectives

1. Given two terms—one a status name, the other not—students will be able to distinguish between them.

2. Students will be able to give an example of reciprocal expectations between pairs of statuses, e.g., the husband's obligations are a wife's rights and vice versa.

Suggested Procedures

Begin the sample lesson by pointing out to your students that the previous lesson had to do with the observation of human behavior, with reporting objectively, whereas today's lesson is about the analysis of observable behavior. The question is: What can be said about the way societies operate by observing and analyzing how people behave?

1. Distinguishing status from non-status:

Distribute the cartoons and, as the students look at them, note their reactions—surely there will be some laughter or other response indicating that students saw incongruities in the behavior illustrated.

Ask the students for a quick description of one of the cartoons, and follow this with such questions as: "Why is this funny? What does the laughter (or other response) show about your expectations? What does the way a person is supposed to act in a situation depend on?" Perhaps the students will observe that whether or not the particular behavior is appropriate in a given situation has to do with "who" individuals are; that behavior which is perfectly appropriate for one individual in that situation is considered definitely inappropriate for others. (The term "behavior" includes, here, such things as clothes, posture, facial expression.)

Next, tell the students that there are technical names for both the "who" and the particular behavior associated with that "who." The technical name for "who" is status. The technical name for the behavior is role. Point out to the students that what they have been observing in the (cartoon) situations is behavior; that if you watch people, what you see is behavior (role) and from that you infer what the status is.

Hand out the Status Names list and ask the students to look through the first ten names. The question is: Are all of these statuses?

Tell the students that there is a simple two-part test to apply to each name. First ask, "Do we expect particular behavior of an individual thus characterized?" If the answer is "Yes," then it is the name of a status. Apply the test to the first name on the list, *mother*, asking students for behaviors expected of mothers and listing the expectations. The other part of the test is to ask, "Does the individual thus characterized have expectations regarding behavior toward him/her? What are they?" (For example, bosses expect deference; children expect support.) After students have supplied several expectations, move on. . . . The intention here is just to establish some sense of two-way expectations (technically, of obligations and rights). Point out that not all the names are as easy to decide about as *mother* and tell them to apply only the first test to the next nine names.

After they have struggled a bit, ask the students for an example from the list where particular behaviors are expected. Then ask them for an example of one where it is uncertain that there are particular expectations. For example, society has widely shared, definite expectations of someone who is a *father*, but we don't have any particular expectations of someone who is bald. (Someone may have particular expectations of a bald person because of personal experience, e.g., a jolly, bald uncle, but society as a whole does not share these expectations.) Ask whether we have particular expectations of *blonde*. What is the evidence that we have such expectations? Do we have particular expectations for a blonde male? What about *brunette*? Is *brunette* a status?

2. Identifying pairs and their reciprocal expectations:

Tell the students that you will now go on to their observations of people around them. Ask them to jot down a list of the people they met since leaving school yesterday (that is, people with whom they had an exchange of conversation however short). Tell them to include both those persons they know by name and those they do not know by name. If they don't know the name, indicate in other terms whom they met; for example, a bus driver. And where they do know the name, they are to indicate also who that person is in other terms, e.g., "friend," "brother," "teacher," etc.—that is, the "status" name.

Hand out the Who Am I circles worksheet. Ask the students to write a status name for six different encounters in each of the six circles that form the outer ring on the worksheet (writing the status names and *not* the personal names, of those whom they met). Then ask them to write in

the inner ring of circles who they were vis-à-vis each of the statuses named in the outer circle; e.g., if the status name in the outer circle is *father*, the corresponding inner circle is *son*.

Compile a list of about ten pairs suggested by students from their Who Am I circles worksheet. Here you can see if the students have made true pairs. For example, *bus driver-passenger* is a true pair, but *bus driver-student* is not. And *uncle-nephew* is a true pair, whereas *uncle-aunt* is not. The test to be used is: Are there rights and obligations existing between the two statuses named? Discuss the listed pairs and the expectations between the members of each pair.

STATUS IN HUMOR

"It must have been a lovely trip to Tahiti, Mrs. Katzmeyer."

WILLIAM HOEST. COPYRIGHT 1967 SATURDAY REVIEW, INC.

"Mother! For Heaven's sake!"

COURTESY BETTER HOMES AND GARDENS.
COPYRIGHT MEREDITH CORPORATION 1967.
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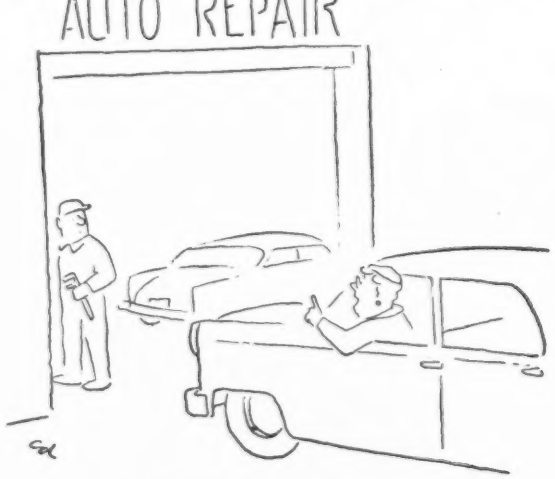
"After you finish the dishes come out and look at this romantic moon."

CHON DAY, COURTESY BETTER HOMES AND GARDENS. COPYRIGHT MEREDITH CORPORATION 1967. ALL RIGHTS RESERVED.



"Oh, grease monkey!"

CHON DAY, COURTESY BETTER HOMES AND GARDENS. COPYRIGHT MEREDITH CORPORATION 1967. ALL RIGHTS RESERVED.

"Can't you stop saying 'Scout's honor?' You're 52 years old!"

ROBERT CENSONI. COPYRIGHT 1967 SATURDAY REVIEW, INC.

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1 mother	21 veteran	41 priest
2 best friend	22 teen-ager	42 Republican
3 blind person	23 capitalist	43 child
4 secretary	24 nurse	44
5 uncle	25 fat person	45
6 bald person	26 U.S. citizen	46
7 doctor	27 blonde	47
8 lawyer	28 immigrant	48
9 licensed driver	29 sister	49
10 Communist	30 U.S. senator	50
11 alien	31 cello player	51
12 mother-in-law	32 politician	52
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14 patient	34 unemployed	54
15 aunt	35 patrol boy	55
16 hippie	36 right-handed person	56
17 tall person	37 picket	57
18 passenger	38 news broadcaster	58
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20 father	40 athlete	60

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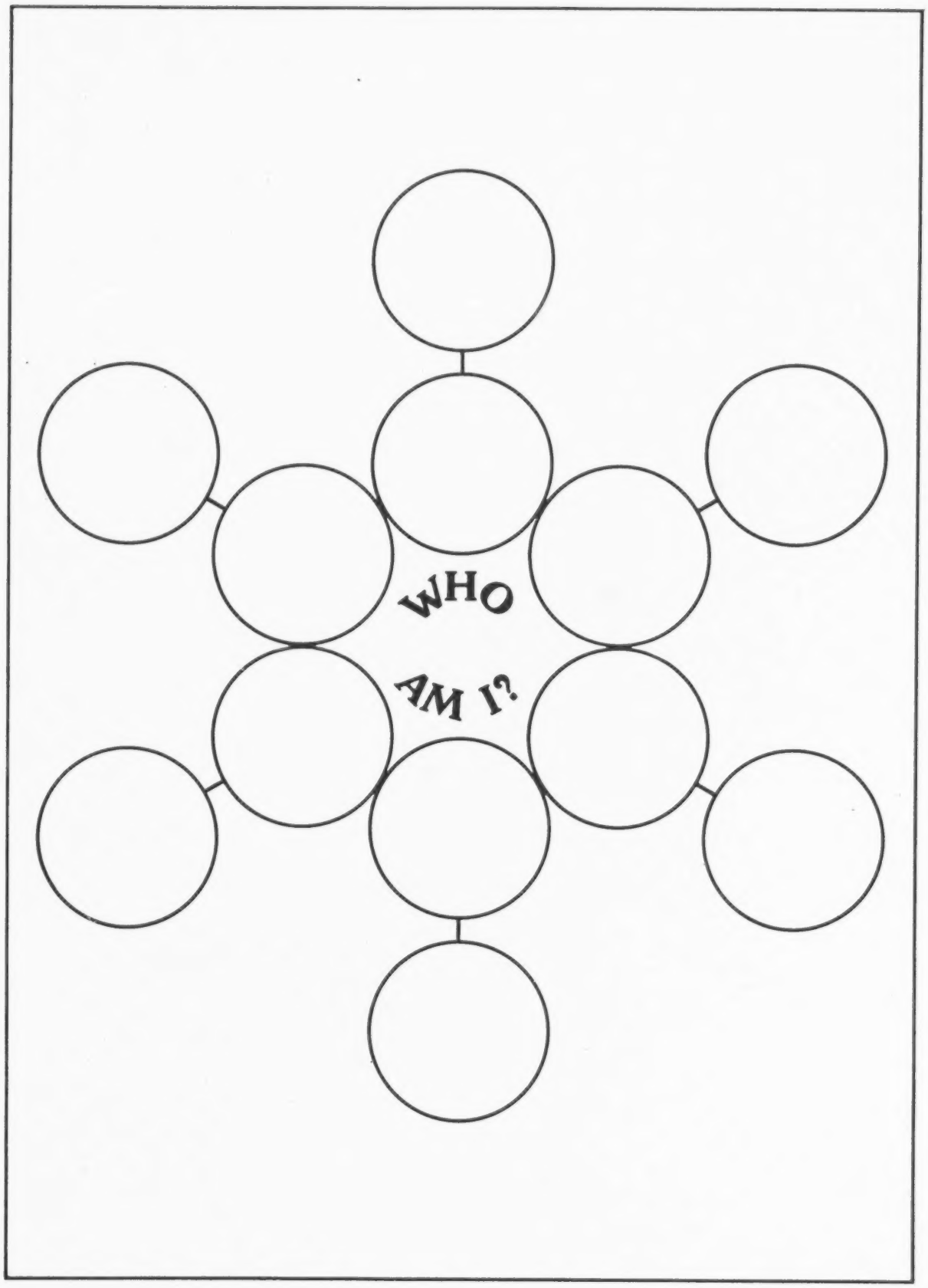

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SAMPLE LESSON III

From PATTERNS IN HUMAN HISTORY: The Emergence of Complex Societies
An Adaptation of Lessons One and Two

It is a great leap from the demonstration in Sample Lesson II—that rights and obligations exist between individuals and serve as rules regulating the individual's behavior—to the idea that each society operates through a complex network, or system, of rights and obligations. It is the analysis of the characteristics of such systems that provides us with a tool for understanding the differences between types of societies.

Students taking the whole course use the ideas presented in the earlier topics, applying them first to a simple, "primitive" society, then to some prehistoric societies, and finally to a series of the kinds of societies that came into being as a result of the beginning of food production.

They find, for example, that societies differ in the total number of their statuses and roles, and that they differ in the way people achieve particular statuses (whether they are born into them and change only by growing older as in some simple societies, or whether they enter statuses only by extensive training, e.g., as nurses, teachers). And they learn that societies differ also in the sanctions they impose on people who transgress the obligations of their statuses (small-scale societies tend to rely on moral force; large-scale societies need legal systems and coercion). Analyzing social behavior in these terms provides some insight into the mechanisms by which all societies operate.

The characteristics of the status system make up one of the categories used for comparing such societies as the Mbuti Pygmy, a group living in the Congo rain forest; the people who occupied Jarmo, one of the earliest known villages, about 8000 B.C.; tribal societies; peasants; the Early Dynastic Tigris-Euphrates societies; the members of the state—Sumer. Topic 1 of "The Emergence of Complex Societies" is, indeed, called "Jarmo." In the first lesson, students observed 29 artifacts from the archeological site of Jarmo and made some inferences about how life in Jarmo differed from the life of the Mbuti hunting-gathering society they had just studied. In the second lesson, they compared the specialist's reconstruction of life in Jarmo with the life of the Mbuti. Presumably they will have observed a number of contrasts, including such differences in the status systems as the number of status positions, the means of access to them, and the basis of sanctions. Then in Topic 2, students consider for the first time written evidence—records in cuneiform writing on clay tablets from the Early Dynastic Tigris-Euphrates societies.

For the purposes of this third Sample Lesson, you may want to paraphrase briefly for the students some—or all—of the above information. Then go on with the "Suggested Procedures" given below.

Introduction

By analyzing cuneiform texts, students begin to see the kind of society represented by the texts.

Materials/Equipment

Readings:

"Cuneiform Text Translations" B, C, E, F, I, K (to avoid confusion, texts are identified by the letters used in the published material—which carries eleven texts in all).

Optional:
Blank OHT's
Overhead projector

Objectives

1. Students should be able to identify the various purposes of the six documents and to suggest a modern equivalent for at least one of them.

2. Students should be able to identify status names in the Texts B, C, E, F, I, and K.

3. Students should be able to describe the society that produced the texts in terms of the kinds of status relationships implied by the content.

Suggested Procedures

In giving the students the necessary background for this lesson, be sure they understand that these records are not in writing as we know it. The writing was done on clay tablets and is called cuneiform.

Make clear that the texts are prosaic records not intended as historical documents by their producers. One way to make this point is to ask the students to suggest modern equivalents (roughly speaking) of the texts: timetable, stock quotations, income tax form, deed.

Explain that the texts come from different historical periods and different cities but that information from the later period can be used to complete the reconstruction of the earlier periods. This is because they all come from a generally consistent and persistent cultural tradition.

Then assign each of the students one of the first three texts (B, C, E) for careful analysis, or divide the class into three groups and assign each group one text to analyze. Ask them to study the text for a few minutes with the following question in mind:

What does this text tell about the life of the people of the society in which it was written?
(Tell students that it may be helpful to start their analysis by asking: What is it? Who wrote it? For what purpose? Who would read it?)

When they have had a chance to examine the text assigned them, ask for their analyses. The class might spend ten minutes on discussion of the reports of all three texts.

Then assign (as before) the other three texts (F, I, K), which are court records. Tell the students that they are to study these texts with the same question in mind but that they are now to do a more formal analysis. Ask them (as individuals or in the group) to make a list of all the status names of social positions mentioned in all the Texts (B, C, E, F, I, K).

If you want to start off by giving them an example, the following are mentioned in Text B: *captain, cattle-fattener, soldier, high priest, messenger of the king.* The column "supervised by" implies a status position of *supervisor* or *governor.*

After allowing time for the students to read the new text and draw up the list of statuses, ask for reports.

Put the status names given you by the students on the board or an overhead transparency. (A full list is given in Teacher Background below.)

Ask whether any of the names on the list suggest categories such as occupational specialists or government officials or agents.

Ask for other categories and start short lists of status names under each one. For example:

Are there names that imply differences in legal rights and obligations? (citizen, slave)

Are there names that imply hierarchical relationships within organizations? (captain, soldier, high priest, nishakku-priest, officer of yeomen, yeomen, superintendent)

Looking back over the status names and the categories, ask:

What do these short lists of names tell us about the organization of Tigris-Euphrates society? (One list implies the existence of a complex governmental structure. Another depicts a high degree of occupational specialization. Another suggests the existence of legal classes possessing different rights and obligations. Another tells us that within organizations there are hierarchies of authority—there is supervision of work.)

These characteristics are so familiar it may be hard to get them described in words. But they need to be explicitly identified if students are to understand concretely what is meant when we talk of a "large, complex society."

Teacher Background

There are four parts to the Teacher Background for this lesson: (1) a list of the status names in the six texts; (2) comments on slavery in the texts; (3) comments on social classes; and (4) commentary on each of the texts.

1. STATUS NAMES. A full list of status names from the six texts would be as follows (the order of the names is irrelevant):

slavewoman
physician
son
slave
wife
town elder
king's deputy
king
Grand Vizier
judge
witnesses
inspector
barber
orchard-keeper
widow
foreman
superintendent
infantryman
governor
plaintiff
citizen
palace (or crown) client
seller
buyer
runaways
dead
millers
feeder of calves
orchardists
captain
soldiers
messenger of the king
cattle-fattener
high priest
fathers
mothers
husbands
daughters
male
female
house-born slave
sailor
fisherman

2. SLAVERY. Two of the texts (E,F) mention slaves. Whether or not slavery was an important economic institution in ancient Mesopotamia is a matter of dispute among specialists. It is believed slaves represented a fairly small proportion of the population. Most of them probably did not labor as agricultural workers but were instead engaged in various household industries and as personal servants.

Warfare was a source of slaves. There was evidently also debt slavery. The texts described two other ways of becoming a slave—punishment for crime of a spouse and being born the child of a slave. Female slaves were sometimes concubines, and this might explain "house-born slave" in Text E. In that text, Dinger-Urmu, listed as a son but also possibly indicated as a house-born slave, might have been the child of a female slave who was a concubine. In the same family there is a daughter also indicated as a house-born slave.

3. SOCIAL CLASSES. We have evidence in these texts of kings, wealthy private landowners, serf-like workers on agricultural estates, pastoralists with a military obligation, city people who are physicians. We also have evidence of various government functionaries and, of course, slaves. Clearly this is not a homogeneous society in which every man is approximately the equal of every other man. On the contrary, it is a society in which inequalities are institutionalized. The society is *stratified.*

There is a ruling class composed of government and temple officials and wealthy landowners; many of the wealthy serve as government officials. This class is probably not very large. The largest group in the population probably consists of individuals occupying a variety of serf-like statuses with obligations to the state or to a temple or perhaps to a private landowner. The people in this group were not free to move where they wished, although they were not property and could not be bought and sold. Scholars differ in their designations for this segment of the population. "Client" is one term used for this group and refers to a patron-client relationship. "Serf" may be the more accurate term.

4. COMMENTARY ON THE TEXTS. Basic information on the texts, and interpretations, are provided. But the intention is not that the students "discover" these particular interpretations. Restrain the natural impulse to judge student ideas in terms of "right" and "wrong." The "answers" in the Teacher Background section are far from firm; there are many uncertainties involved. So even the student conjecture that seems wild should be accorded a measure of respect, and responses that coincide with those in the Teacher Background section should not be received with excessive warmth.

Text B. Date: Second year of Ibbi-Sin, fifth king of the Third Dynasty of Ur. The date corresponds to 2023 B.C. The text is from Drehem, in the area of Nippur. The text deals with taxes collected by the king from soldiers living in different settlements in the area of the modern Diyala River. The soldiers were given land by the king, in return for which they owed military service and taxes throughout their lives. Such part-time soldiers were not free citizens but were serf-like in their dependence on and control by the ruling powers. Taxes were collected in kind (that is, in goods), not in money (that is, precious metal).

Significance: This tablet tells us several very important things: (1) there are *taxes;* (2) there is a *central power* that can command taxes, a power so removed in physical and social distance that the transactions are handled through agents; (3) there are *cities* ("In the terminology of Sumerian and Akkadian no distinction is made in respect to the size of the settlement; village and city are both called *uru* in Sumerian and *ālu* in Akkadian, indeed this term applies to every permanent settlement consisting of houses made of sun-dried mud bricks and sometimes even to agglomerations of huts and other forms of shelter constituting an administrative unit."[1]); (4) there is a *political hierarchy* (the "supervisors" of the settlements presumably have delegated authority); and (5) there is enough *surplus wealth* to pay the taxes.

Text C. Date: Third year of Bur-Sin (2049 B.C.), third king of the Third Dynasty of Ur. The text is written in Sumerian. Exact location of Babaz unknown. The text indicates the *monthly* barley rations of work personnel of the household of Babaz, in the area of Nippur.

Significance: In Jarmo (the society that was studied in the previous topic by students taking the regular course), age and sex were probably the only bases for division of labor. The society that produced Text C also had such division of labor, but it had specialized much further. This text suggests a very complex agricultural organization, almost on the lines of a factory farm. In the society of Text C, there are many different specialized occupations, at least on estates such as the one that produced this record. The workers receive rations but in different amounts according to sex, occupation, and seniority.

The workers are in effect "serfs," and the conditions of work and treatment accorded the workers are attested by the large numbers of runaways and deaths within the month.

The text suggests that the estate probably specialized in grain (see large number of plowmen) but was generally a self-sufficient economic unit. The existence of such an estate tells us very clearly that this society must have had wide differences in wealth (and presumably rank) based on agricultural property. This is very different from the relative homogeneity of villages like Jarmo.

Text E. Date: Fifth year of Urukagina, who ruled in Lagash about 2400 B.C. The text is written in Sumerian. It illustrates the composition of twelve families (55 individuals). The twelve families are moving from the country to join the household of the temple of Bau in Guabba (near Girsu). The reason for their joining the temple is not stated. It might be that the families were "gentry" who had come upon hard times. Impoverished and starving, they were forced to place themselves at the disposal of the temple in order to survive. In return for housing and subsistence, they provided the labor for the temple, thus becoming "serfs," as most probably did their former slaves.

Significance: Someone has taken the trouble to list a series of families in a very orderly way, classifying them according to parents, children, and slaves, and adding the total. Presumably, someone in the organization is interested in accounting very strictly for these people. You might ask under what circumstances such a strict accounting might be useful or important.

The tablet also tells us of several specialized economic roles, e.g., sailors and fishermen. This would suggest a highly developed waterborne commerce and a fishing industry. "Sailor" and

"fisherman" in this case might not connote ordinary sailors or simple fishermen but entrepreneurs who operated several vessels.

The families as described are small, nuclear families. There is only one family that seems to have a grandmother attached. Seven of the families have slaves.

The very fact of the text—the listing of the families—testifies to a "bureaucratic" handling of people, impersonal and efficient. This, in turn, suggests a much larger, complex society than that of Jarmo. And, of course, the text records the existence of an organization called "household of the Temple of Bau." The existence of this organization tells us of something quite different from small neolithic villages. The "household" of the temple was probably plantation-like, a large acreage of land, a work force more or less permanently attached, and houses, barns, etc.

Text F. The accused in this case was a slave and therefore not a "legal person" in her own right. While her master was not actually the one to be tried, he seems nevertheless to be held responsible for his slave's misdeeds. In this case, the punishment was inexplicably severe. Since the slave was convicted of the theft, she was taken away from her owner, and awarded to the victim of the theft. Thus, the slave woman was in a sense not punished herself—she was a slave before and after her act—but her master was. The trial record does not inform us why the slave woman's master was not himself present at the proceedings, but his wife and son were stated to be there, and this is meant to serve as a guarantee against possible counterclaims by him over ownership of the slave woman.

Text I. The penalty for adultery committed by a married woman as prescribed in the existing law codes from ancient Mesopotamia is usually death by drowning. This penalty clause is also stipulated in most marriage contracts for a wife who leaves her husband. The present trial, a unique record, shows that in actual practice, the extreme penalty was not resorted to even in the most flagrant situation, which the present one appears to represent. The two antecedent charges of burglary already imply the third, in that it was to be understood that the wife would not have resorted to such activities unless she was carrying on with another man. What amounted only to indirect evidence was finally confirmed when the husband actually caught his wife and the other man in the adulterous act. That a divorce was granted, without compensation, is to be expected in these circumstances. (A divorce initiated by the husband without justifying grounds requires a heavy divorce payment to the wife, especially if she has borne children to him.) The additional degrading punishment imposed on the wife in the present case was a kind of Mesopotamian "pillory," a punishment normally imposed for lesser kinds of offenses, designed to serve as an object lesson to the rest of the population. It is noteworthy, however, that the record says nothing about any punishment for the other man. It is possible that he was to suffer the same degrading procedures, but the text does not clearly state this. It is also interesting to note that the second part of the penalty required the authority of the king, indicating that this was not the normal procedure in such cases.

Text K. The Code of Hammurapi exemplifies the tripartite division of society in Babylonia about 2000-1600 B.C., consisting of: (1) the *free citizenry*—those who were economically totally independent, living mainly off their own agricultural lands; (2) the *client class*—those who depended for all or at least part of their financial resources upon the Crown, such as most of the armies, artisans, and a considerable peasantry, who in varied ways owed the king some kind of service, such as military, agricultural, etc., in return for which they lived on lands technically owned by the Crown; and finally, (3) the *slave class.* We have no way of knowing the relative size of these classes, but it is fairly certain that the slaves did not constitute a large proportion of the population.

These laws demonstrate the concern that the rights and prerogatives of the classes be properly respected. The slapping of someone's face is more a matter of insult than real injury. Thus, if anyone should dare hit someone else of superior rank, his punishment would be a severe flogging, in public, so that he should himself be "taught a lesson" by means of a punishment that is even more degrading. If, however, both the assaulter and victim were of the same free-citizen class, the law does not consider this a matter of overstepping one's class boundaries but a private "injury." The "damages" were quite severe, however, in view of the high station of the persons involved, since a mina of silver at that time could buy two average slaves or two average draft animals. But if

the two parties were members of the client class, the damages are reduced to ten shekels, that is, only one-sixth of a mina (which consists of sixty shekels). Should the assaulter against a free citizen be a slave, the punishment becomes a physical one—cutting off his ear—which is intended to inflict pain and humiliation on the slave himself without impairing his economic usefulness to his master (who is not considered to be responsible for his slave's behavior in such cases). Flogging the slave is not mentioned. Since flogging would be a normal way for a slave to be chastised by his master, it would not amount to any distinctive humiliation for him if such were his punishment in this instance.

The Laws of Eshnunna (formulated in a small kingdom in the region east of present-day Baghdad) were written down perhaps twenty to thirty years before the Code of Hammurapi. This set of laws is much shorter than the Code of Hammurapi and much more condensed. That is also why it does not deal with the same offenses as it might affect the different classes, but gives only the case as it affects the free-citizen class. We see, therefore, that the penalty for face-slapping in Eshnunna is only one-sixth that prescribed by the Code of Hammurapi and is, in fact, the same as the latter prescribes for the palace client class. In the actual case, we see that the penalty was in fact even smaller.

This record of a trial shows that the penalties were lighter in many instances than even the lightest to be found in the "Codes." But the penalty of three and one-third shekels which was imposed on the offender, a sum which is unusual in that it is not a round figure, shows that ten shekels was in some way a true sum for this kind of offense in Eshnunna, for three and one-third shekels is exactly one-third of ten. We may therefore assume that the plaintiff in this case was of the palace client class, as was the offender, who is identified as an Amorite (that is, he belonged to one of the clans which came from the Syrian desert) infantryman and therefore, by definition, a member of the client class. We may therefore deduce from this that the penalty for this offense where free citizens were involved would have probably coincided with the prescription of the Laws of Eshnunna. While the Code of Hammurapi would seem to take a more severe view of such offenses, it may be guessed that in actual cases, the courts would have more or less followed the practice of Eshnunna.

NOTE

[1] Oppenheim, A. Leo, *Ancient Mesopotamia: Portrait of a Dead Civilization*, Chicago: University of Chicago Press, 1964, p. 115.

6 *The Emergence of Complex Societies*

TEXT B

TAX			PERSONS PAYING			
Bull	*Sheep*	*Goat*	*Name*	*Title*	*City of*	*Supervised by*
2?			Ahuni			
2?			Nur-Eshtar	captain	Abibana	
1			Nabi-Sin	captain	Kakkulatum	Ahuni
1			Aguali	captain	Ishim-Shulgi	Sillush-Dagan
3?			Shalim-ahum	captain	Tutub	Lu-Nanna of Mashkam-abi
1			Shu-Mama	captain		
1			Damqum	captain	Kishkatti	Sillush-Shulgi
23	230		12 names of captains			
17	135	35		soldiers	Ishim-Shulgi	Sillush-Dagan
2	20		Lu-Nanna		Zimudar	
1	10		Dayyan-ili	captain		
1	10		Puzur-haya	captain		
1	10		Ikun-mishar	captain		
1	10		...	...		
4	37	3		soldiers	Shami	
2	20	5	Lu-Nanna	captain		
3	25	5		soldiers	Tumbal	Lu-Nanna of Zimudar
2	20		Ahuni			
1	10		...	...		

TAX			PERSONS PAYING			
Bull	*Sheep*	*Goat*	*Name*	*Title*	*City of*	*Supervised by*
4	35	5		soldiers	Abibana	
1	10		Nabi-Sin	captain		
1	10			soldiers	Buhzikar	
3	25	5		soldiers	Kakkulatum	Ahuni
2	13	7	Bur-Mama	captain		
1	10			soldiers	Mashkan-ushuri	Kurbilak
2	20		Humzum	captain		
1	10		Zabum	captain		
1	10		...	captain		
1?	10?		Arshi-ah	captain		
1	10		...	...		
4	34	6		soldiers	Putshadar	Humzum
2	20		Sillush-Shulgi	captain		
1	10		Shu-Mama	captain		
1	10		Damqum	captain		
8	61	19		soldiers	Kishkatti	Sillush-Shulgi
2	20		Lu-Nanna			
1	10		Shalim-ahum	captain		
1	10		Laqip	captain		
6	47	13		soldiers	Tutub	
8	65	15		soldiers	Mashkan-abi	Lu-Nanna of Mashkan-abi

Control: Ili-sukkal, the messenger of the king, and Shurush-kin, the cattle-fattener.
[Total] 121 bulls, 1100 sheep [and goats]. Taxes of the province.
Month of Ubiku. The year when the high priest of the goddess Innin of Uruk was chosen by omen.

Cuneiform Text Translations 7

TEXT C

EMPLOYED AS	PERSONS RECEIVING RATIONS (measured in quarts)														TOTALS		PERSONS NOT RECEIVING RATIONS			
	Men							Women	Children											
									Boys				Girls							
	125	75	60	50	50 (old)	40	30	30	25	20	15	10	15	10	Persons	Barley	Run-aways	Dead	Unknown	Total
Plowmen	11	13	5	4		4	4		1		2	1			45	3195	42	5	34	81
Soil-men Porters of Soil			1		1										2	110	6	2	8	16
Fieldhands		3													3	225		1	2	3
Artisans		2													2	150			3	3
Vegetable growers		1							1		2				4	130				
Gate keepers					3					1	1				5	185	1	1		2
Feeders of calves			1			16	21		11	4					53	1685	4	2		6
Millers								5				1		1	7	170	8			8
Millers and feeders of calves			1					3			1	1	2	2	10	225		1		1
Orchardists under Nisabaandul			6							3		1	1		11	445		6	1	7
Orchardists under Adalal			11	1		3	1			3		1			20	930		1	4	5
Totals	11	19	25	5	4	23	26	8	13	11	6	5	3	3	162	7450	61	19	52	132
	113 men							8 women	41 children						162	7450	132 not receiving rations			

Barley rations of the personnel. In Babaz. [Received] from Nisaba-andul.
The year in which the throne of the god Enlil was built.

TEXT E

	FATHERS	MOTHERS	CHILDREN		SLAVES		TOTAL
			Sons	*Daughters*	*Male*	*Female*	
1st Family		Luba, wife of Ur-shapada, widow	Edinba-aduna, Egiga-batum, Ur-lisi	Nin-en...., ...			6
2nd Family		He-bau, wife of Ur-Ninmar, widow	Enni-anag, Lugal-itida, Dingir-urmu, house-born slave?	Ninsigar-abba, Shesh-kugishe-mutum, Nangarasha, house-born slave?			7
3rd Family	Sagatuka	Ninbara-dari, his wife	Entur	Ninuma, Uru-kuga-bilul			5
4th Family		E-ulli, wife of Ur-innin, widow	Dudu	Geme-igimashe, Sha-ururishe, Shasha, Nine-kalba-idim-salzi			6
5th Family	Nigin-mud, the sailor				Enki-urmu, Hani, slave of Nesag, the fisherman	Nanga-amamu	4
6th Family	Nigirsi	Geme-igimashe, his wife		Geme-ib, Nin-shalatuku, daughter of Lupad, the foreman		Geme-ib, Ninmudakush	6
7th Family	Ur-enki	Ninaba-nirgal, his wife		Urumu-anag			3
8th Family	Guaba-kidug				Enanamu, Kiash	Zana	4
9th Family	Agrig-muti			Geme-igimashe	Ninmar-lugalmu		3
10th Family		....ma, mother of Enda		Abba-zili			2
11th Family		Ninurua-idug, Hekikuga, her mother	Erindani, Ur-bau, Urtarsara	Ashumerin		Nin-kiasha	7
12th Family	Tirkugisi, the sailor				Dimni		2
Totals	7 fathers	9 mothers with children	11 sons	17 daughters	6 slaves	5 slave girls	55

Total: 55 individuals "small and large" [= children and grown-ups] moving to Guabba.
Household of the temple of Bau.
Eniggal, the superintendent [of the temple of Bau] listed them by name. 5th year [of Urukagina].

TEXT F
Larceny[1]
Date: 2030 B.C.
Language: Sumerian
Tablet found in Lagash

Final judgment rendered: Luhuwawa, a slave woman belonging to Urbaba the physician, stole a cloak belonging to Bazi, son of Sheshesh, having removed it from [its premises]. She declared: "Lugaldurdu, the slave of Bazi, gave it to me." Lugaldurdu [thereupon] swore an oath at the Temple of Ninmar that he did not give her this cloak. Luhuwawa was therefore awarded [by the court] to Bazi, son of Sheshesh, as his slave woman.

Sigturtur, wife of Urbaba the physician, as well as Guahush, her son, were present both at the place where the decision was rendered and where the oath was taken.

Gude'a, the town elder, served as king's deputy.

[Dated] Year in which Shu-Sin, King of Ur, erected the great stone monument to [the gods] Enlil and Ninlil.*

*That is, the 6th year of Shu-Sin, 2030 B.C.

[1]Adapted by J. J. Finkelstein from B. J. Siegel, "Larceny," appearing in *American Anthropologist*, Volume 49, Number 1, Part 2 (1947). Used by permission of the author and the American Anthropological Association.

TEXT I
Divorce[4]
Time: Mid 20th Century B.C.
Language: Sumerian
Place: City of Isin in Sumer

Irramalik was married to Ishtarummi, the daughter of Ili-asu. First count: she broke into [and burglarized] his grain storehouse. Second count: she tapped his oil [storage] vessel, concealing it [that is, the tapping] with a cloth. Third count: he caught her in an act of adultery with another man. Tying her to the man with whom she had been in bed, he led them to the town assembly [i.e., the court]. The assembly decided [in the first place] that [she forfeits] her divorce money. [Furthermore,] by order of the king, her head hair and body hair were shaved, her nose was bored through with an arrow, [and by means of a cord strung through it] she was to be marched around the city.

This is a royal decision; Ishme-Daganzimu served as deputy.

[4]Adaptation by J. J. Finkelstein of Samuel Greengus' paper read at American Oriental Society Annual Meeting, Philadelphia, April, 1966, and appearing in *Hebrew Union College Annual* Volumes 60-61. Used by permission of the author.

TEXT K
Assault and battery[6]
Time: 18th Century B.C.
Place: Kingdom of Eshnunna
Tablet found at Tell Seba

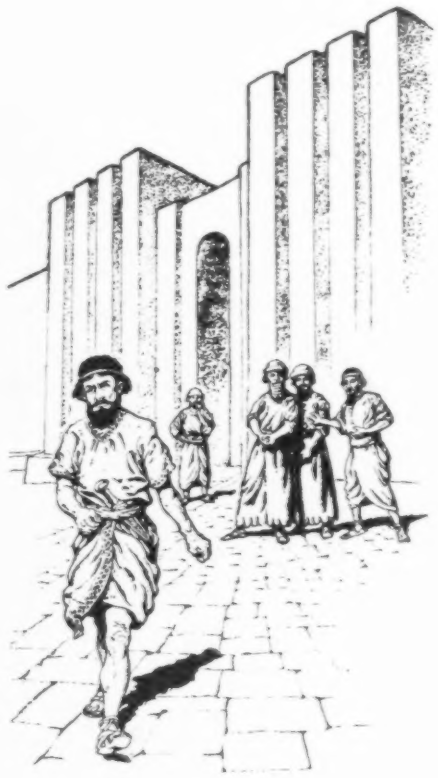
Bir-ilishu, an Amorite infantryman, slapped the face of Apil-ilishu, son of Ahushina, but [when brought to trial] he denied it, saying: "I did not slap him." The governor and the judges therefore directed him to stand at the gate of [the temple of] Ishtar [a local temple of the great goddess], and to swear [his denial] on oath. But he [that is, Bir-ilishu] having walked away, having refused to pay compensation, and having refused to stand and take the oath, he was ordered to pay to [the plaintiff] three and one-third shekels* of silver.

Shelibu, Ili-tillati and Shiglum [witnesses].

Note: Some of the early law "codes" have provisions regarding assault and battery. The Laws of Eshnunna, compiled circa 1780 B.C., specify the following:

If a citizen bit another citizen's nose and severed it, he shall pay [the victim] one mina of silver. If it was an eye—he must pay one mina; if it was a tooth—he must pay one-half mina; if it was an ear—he must pay one-half mina; if it was [only] striking the face, he must pay ten shekels of silver.

*60 shekels = 1 mina. One mina would buy two average slaves or two average draft animals.



The Code of Hammurapi, probably compiled around 1756 B.C., has the following provisions:

If a person strikes the face of a person of a rank superior to his own, he shall be flogged sixty times with an ox whip in full assembly.

If a citizen strikes the face of another citizen of equal rank, he shall pay [the victim] one mina of silver.

If a palace client strikes the face of another palace client he must pay 10 shekels of silver.

If someone's slave strikes the face of a [free] citizen, his ear shall be cut off.

These "codes" did not have much force behind them. They reflect the customs of the times, but the provisions did not constitute rules by which judges were bound.

[6]Selections from "Documents from the Practice of Law," translated by J. J. Finkelstein in *Ancient Near Eastern Texts Relating to the Old Testament*, edited by James B. Pritchard (3rd ed., with Supplement, copyright © 1969 by Princeton University Press), p. 545. Reprinted by permission of Princeton University Press.

SAMPLE LESSON IV

From PATTERNS IN HUMAN HISTORY: Modernization and Traditional Societies
Topic 1: Peasants, *Lesson Four*

The emphasis throughout PATTERNS is on using the ideas presented in the early topics, applying them first to some "primitive" and to some prehistoric societies, then to some anthropological questions as they relate to segments of our rapidly changing modern world. The emphasis is upon *analysis of data* for *understanding*, rather than upon the accumulation of information for its own sake.

Consider, for example, this fourth Sample Lesson, taken from one of the later Topics of the course, a Topic dealing with peasant societies. Keeping in mind that students who had been through *all* the earlier lessons of PATTERNS IN HUMAN HISTORY would be better equipped to work through the lesson effectively, you will find it nevertheless a stimulating activity for your students, even without such preparation. It is illustrative of the content and methods of the course.

Introduction

Students extend their understanding of the peasants' adaptation and come to realize that peasants occupy a powerless position within the state.

Materials/Equipment

Student Readings from "Peasants—14 Encounters" locally duplicated: #5, #8
Student worksheet locally duplicated: Peasant Mini-Dramas
Since your students will have had no previous reading on peasants, they should, if possible, read both the encounters in class; #8, concerning the Italian father and his sons, and #5, concerning the raising of poultry in India. Of these #8 is the more important for this Sample Lesson.

Objectives

Students identify and express the qualities of peasant adaptation to the state.

Suggested Procedures

1. You may want to summarize briefly, the following information (adapted from the Introduction to "Modernization and Traditional Societies" in the Teaching Plan):

> The traditional state is a peasant state. The majority of the population in traditional states is engaged in agricultural production, but the arrangements may vary. The traditional state does not have a culture in which all members of the society participate, but a "high" culture and a "low" culture. The peasants produce the agricultural wealth of the society, and they are connected to the larger society outside their villages because they must pay some of what they produce as rent, taxes, and interest. But they do not share access to political power, to literacy, to the religious forms of the elite. They are rural, uneducated, poor, and quite powerless villagers. To say that they are oppressed and exploited is not an exaggeration.

It is ironic that social systems based on dramatically unequal allocations of power and wealth are able to stabilize precisely because culture is such a powerfully flexible means of adaptation. Oppression and deprivation are bearable because men oppressed and deprived are able to devise cultural defenses that make life at least marginally liveable.

2. You might then ask the students to read to themselves the paragraph-long #8 and to keep in mind this question:

What does the Reading tell us about the ways in which peasants adapt to their problems? Why didn't the father want his sons to tell anyone how many goats he had?

Then divide the class into two or three groups, distribute the Mini-Dramas worksheet, and assign an episode to each group. The students should spend a few minutes preparing a quick sketch, basing their characters and dialogue on what they have just read. The aim is not polished lines but resourcefulness and ingenuity in producing dialogue that reveals the peasant's attitude toward those who officially have power over him. Each group presents a mini-drama; after each, students comment on appropriateness of actors' lines to the peasants' view of their world. Some might disagree enough to want to present a different version. Payoff may drop quickly. In any case, ten to fifteen minutes is probably enough.

3. If your students are able to do so, go on to extrapolate from their knowledge of peasant adaptation to the outside world to fairly accurate (or at least thought-provoking) parallels between socially adaptive behavior of peasants and the socially adaptive behavior of other groups, for example, urban ghetto dwellers, religious communities, ethnic groups. The extent to which you carry this discussion will depend, of course, on what meaningful parallels exist in the student's experiences. We cannot predict how this will go.

4. If there is time, have the students read Encounter #5, as an example of another aspect of peasant life. Ask them what evidence this story provides about the pressure of tradition and the part it plays in the peasant's life.

5–RAISING POULTRY IN INDIA

Hukm Singh, a rangy man in his middle thirties with sloping shoulders, a shaggy black mustache, and a perpetually melancholy look, is one of the best farmers I have met in India.

He also is one of the more prosperous, with fifty acres in south central Uttar Pradesh state where holdings average about five acres. When the Akola community project was launched, the village level worker (VLW) singled out Hukm Singh as a natural village leader. He had land, resources and a high school education. Other villagers looked up to him.

Hukm Singh quickly took up improved seed, artificial fertilizer and other agricultural practices suggested by the VLW.

When the project introduced mustard seed, Hukm Singh volunteered one acre as an experimental plot to compare combinations of ten varieties and three fertilizers.

With VLW's guidance he converted three acres of land near the irrigation canal into a profitable fruit and vegetable nursery.

Then Hukm Singh went too far. Although he was a Jat, a vegetarian caste, he bought some white leghorn chicks from the project to raise poultry and eggs for tourists visiting the Taj Mahal in nearby Agra.

The other Jats were incensed. The caste council ostracized him. His neighbors refused to pass him the hookah — that is, they shunned him in their evening get-togethers over a community pipe.

Hukm Singh held out at first, but eventually he buckled under the pressure. He gave the birds to his Harijan (untouchable) sweeper.

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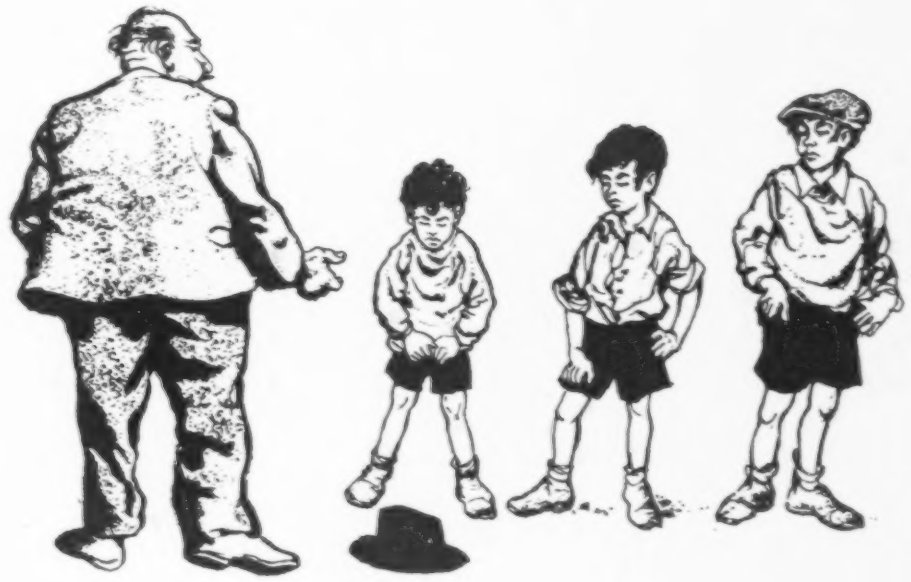
8 – AN ITALIAN FATHER AND HIS SONS



Dr. Gino tells a story about a peasant father who throws his hat upon the ground. "What did I do?" he asks one of his sons. "You threw your hat upon the ground," the son answers, whereupon the father strikes him. He picks up his hat and asks another son, "What did I do?" "You picked up your hat," the son replies and gets a blow in his turn. "What did I do?" the father asks the third son. "I don't know," the smart one replies. "Remember, sons," the father concludes, "if someone asks you how many goats your father has, the answer is, you don't know."

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PEASANT MINI-DRAMAS

THE SITUATION

The Peasant: In the remote rural village where he lives, everyone is poor, but this man is a little better off than most in the village as a result of years of hard work and owning good land. With the money he has saved, he hopes to secure a good marriage for his daughter. His position and his hopes are challenged in the following situations:

Episode 1 *The Tax Collector* approaches the peasant who is standing in the yard in front of his home.

TAX COLLECTOR: "I hear the crops did well in your valley this year."

PEASANT (OR PEASANT'S WIFE): *(ad lib)*

Episode 2 *A Neighbor* from the same village meets the peasant (or his wife) by the dump just outside the village.

NEIGHBOR: "Is it true that your daughter had a fight with the woman who sells pottery and refused to pay for the pottery that was broken in the fight?"

PEASANT (OR PEASANT'S WIFE): *(ad lib)*

Episode 3 *A Stranger* greets the peasant near his house and tells him he is an official sent by the national government to help the peasant's village prosper through better crops and better ways to farm.

STRANGER: "I understand you have much good land that you farm well. I am here because our government has sent me to bring progress to you and your village. The government asks you for one season to devote an insignificant part of your land to grow a marvelous new crop which the government guarantees will make you, and eventually your whole village, richer."

PEASANT: *(ad lib)*

STRANGER: "Here, I have an official document which verifies all I have said." *(Hands paper with writing and a seal on it to the peasant, who cannot read.)*

PEASANT: *(ad lib)*

A FINAL WORD

We have taken a very selective and not altogether satisfactory trip through a carefully integrated sixteen-week course of study in a search for answers to the three questions posed at the start: What is anthropology? How does it meet high school curriculum needs? and What do I need to know to use anthropology in my teaching? Perhaps the Sample Lessons have hinted that one of the goals of PATTERNS is providing practice in the observation and analysis of human behavior and in the identification of the criteria for a typology of human societies. The unfolding of these ideas and skills in the sixteen-week course can be seen by referring again to the list of the contents of PATTERNS on pp. 76-77.